

# SEARCH REQUEST FORM

Scientific and Technical Information Center

61148

Requester's Full Name: Robert D. Willy Examiner #: 28393 Date: 2/26/02  
 Art Unit: 1616 Phone Number 308-2411 Serial Number: 09/840322  
 Mail Box and Bldg/Room Location: 2303 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

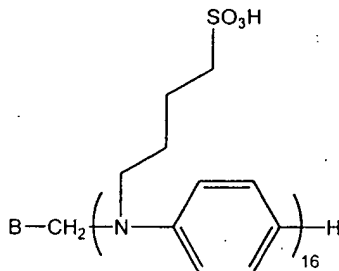
Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search the below compound in  
 conjunction with Inhibiting Growth Tumor  
 Cells.



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## STAFF USE ONLY

Searcher: **if Contact: Sheppard**  
 Searcher Phone #: **tel: 308-4499**  
 Searcher Location: \_\_\_\_\_  
 Date Searcher Picked Up: \_\_\_\_\_  
 Date Completed: 3/1/02  
 Searcher Prep & Review Time: \_\_\_\_\_  
 Clerical Prep Time: \_\_\_\_\_  
 Online Time: \_\_\_\_\_

Type of Search	Vendors and cost where applicable
NA Sequence (#)	STN
AA Sequence (#)	Dialog
Structure (#)	Questel/Orbit
Bibliographic	Dr. Link
Litigation	Lexis/Nexis
Fulltext	Sequence Systems
Patent Family	WWW/Internet
Other	Other (specify)

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=> fil hcaplus
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FILE COVERS 1907 - 1 Mar 2002 VOL 136 ISS 10
FILE LAST UPDATED: 28 Feb 2002 (20020228/ED)
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This file contains CAS Registry Numbers for easy and accurate substance identification.

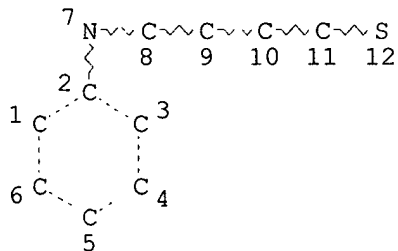
CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

The P indicator for Preparations was not generated for all of the CAS Registry Numbers that were added to the CAS files between 12/27/01 and 1/23/02. As of 1/23/02, the situation has been resolved. Searches and/or SDIs in the H/Z/CA/CAplus files incorporating CAS Registry Numbers with the P indicator executed between 12/27/01 and 1/23/02 may be incomplete. See the NEWS message on this topic for more information.

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L14 STR
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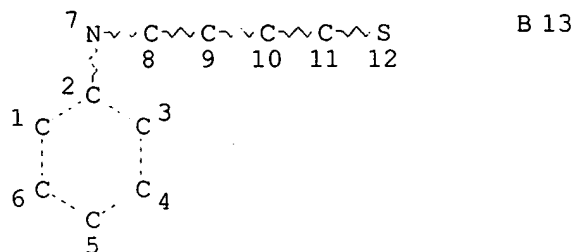
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 12
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STEREO ATTRIBUTES: NONE

L15 1335 SEA FILE=REGISTRY SSS FUL L14

L16 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L17 3 SEA FILE=REGISTRY SUB=L15 SSS FUL L16

L26 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L17

L27 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND (?INHIBIT? OR ?TUMOR?  
OR TUMOUR? OR ?CANCER? OR ?NEOPLAS? OR ?MALIGN?)

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=> d ibib abs hitrn l27 1

L27 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:509200 HCAPLUS

DOCUMENT NUMBER: 129:149097

TITLE: Preparation of boronic acid derivatives and  
pharmaceutical compositions useful as angiogenesis  
**inhibitors**

INVENTOR(S): Cordi, Alex; Desos, Patrice; Atassi, Ghanem; Pierre,  
Alain

PATENT ASSIGNEE(S): Adir et Cie., Fr.

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9831688	A1	19980723	WO 1998-FR89	19980119
W: AU, BR, CA, CN, HU, JP, NO, NZ, PL, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2758560	A1	19980724	FR 1997-525	19970120
FR 2758560	B1	20000204		
AU 9859930	A1	19980807	AU 1998-59930	19980119

ZA 9800440 A 19980729 ZA 1998-440 19980120  
 PRIORITY APPLN. INFO.: FR 1997-525 A 19970120  
 WO 1998-FR89 W 19980119

OTHER SOURCE(S): CASREACT 129:149097; MARPAT 129:149097

AB The invention concerns the prepn. and pharmacol. usefulness of (R3Y)2BA4C6H2A2NRaXA1XNRbA3C6H2A'4B(Y'R'3)2 (R1, R2, R'1, R'2 = H, halogen, C1-6 alkyl, C1-6 alkoxy, hydroxy, nitro, trihalomethyl; or R1 and R2 (or R'1 and R'2) form together with the benzene nucleus which bears them a naphthyl or anthracenyl group; X = C:T, SO2, CH2, or X-A1-X = C(T)NHA1NHC(T) (T = O, S); Y, Y' = O, NR4 (R4 = H, C1-6 alkyl); A1 = C1-20 alkylene chain with 0-6 double bonds in which .gtoreq.1 CH2 groups are replaced by O, S, CF2, phenylene, naphthylene, anthracenylene, cycloalkylene, 1,4-piperazinediyl, etc.; A2, A3 = C1-6 alkylene group or single bond; A4, A'4 = single bond, C1-6 alkylene group contingently substituted by .gtoreq.1 halogen, OH, C1-6 alkoxy or O, CH:CH; R3, R'3 = H, C1-6 alkyl or YR3 (Y'R'3) with boron forms a ring; Ra, Rb = H, C1-6 alkyl). The invention also concerns isomers as well as additive salts to a pharmaceutically acceptable base. In an example prepn., 4-(HO)2BC6H4NHC(O) (CH2)8C(O)NHC6H4B(OH)2-4 was prepd. by base hydrolysis of its 1,3-propanediol ester, which in turn was prepd. from sebacoyl chloride in MeCN by addn. of pyridine dropwise followed by the 1,3-propanediol ester of 4-aminophenylboronic acid. The above compds. are useful as angiogenesis **inhibitors**. Expts. are reported indicating that the compds. are powerful **inhibitors** of proliferation of endothelial cells and that they **inhibit** growth of M 5076 sarcoma in mice.

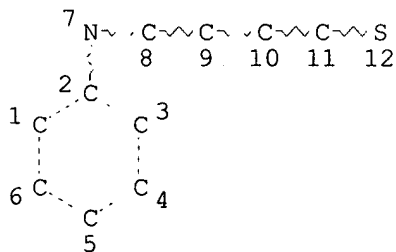
IT **210907-57-6P**, Bis(3-((3-boronophenyl)carbamoyl)propyl) disulfide  
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of boronic acid derivs. and pharmaceutical compns. useful as angiogenesis **inhibitors**)

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=> d stat que 128

L14 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

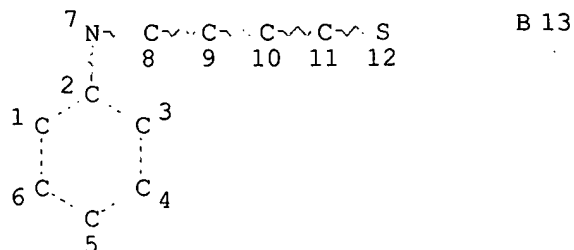
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L15 1335 SEA FILE=REGISTRY SSS FUL L14  
L16 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L17 3 SEA FILE=REGISTRY SUB=L15 SSS FUL L16  
L18 1 SEA FILE=REGISTRY ABB=ON PLU=ON BORON/CN  
L19 79415 SEA FILE=REGISTRY ABB=ON PLU=ON BORON/BI  
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L23 256538 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 OR L19  
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=> d ibib abs hitrn l28 1-4

L28 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:169388 HCAPLUS  
DOCUMENT NUMBER: 132:208142  
TITLE: Preparation of peptides as matrix metalloprotease  
**inhibitors**  
INVENTOR(S): Castelhana, Arlindo Lucas; Bender, Steven Lee; Deal,  
Judith Gail; Horne, Stephen; Liak, Teng J.; Yuan,  
Zhengyu  
PATENT ASSIGNEE(S): Syntex (U.S.A.) Inc., USA  
SOURCE: U.S., 42 pp., Cont.-in-part of U.S. Ser. No. 147,811,  
abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6037472	A	20000314	US 1994-343158	19941122
CA 2175667	AA	19950511	CA 1994-2175667	19941103
ZA 9408691	A	19960503	ZA 1994-8691	19941103
CN 1134153	A	19961023	CN 1994-194001	19941103
CN 1044249	B	19990721		
HU 74730	A2	19970228	HU 1996-1154	19941103
AT 155471	E	19970815	AT 1994-932023	19941103
ES 2105783	T3	19971016	ES 1994-932023	19941103
CZ 287642	B6	20010117	CZ 1996-1260	19941103
WO 9616027	A1	19960530	WO 1995-US15530	19951121
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9642897	A1	19960617	AU 1996-42897	19951121
AU 705439	B2	19990520		
EP 793643	A1	19970910	EP 1995-941493	19951121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
BR 9509802	A	19970930	BR 1995-9802	19951121
CN 1173170	A	19980211	CN 1995-197409	19951121
HU 77533	A2	19980528	HU 1997-1970	19951121
JP 10509719	T2	19980922	JP 1996-517109	19951121
RU 2163232	C2	20010220	RU 1997-110062	19951121
ZA 9509948	A	19970522	ZA 1995-9948	19951122
FI 9702160	A	19970522	FI 1997-2160	19970521
NO 9702307	A	19970722	NO 1997-2307	19970521
PRIORITY APPLN. INFO.:			US 1993-147811	B2 19931104
			US 1994-343158	A 19941122
			WO 1995-US15530	W 19951121
OTHER SOURCE(S):		MARPAT 132:208142		
AB	Peptides R1CH2CH(XR2)CONHCHR3CONH(CH2)pR7 [R1 = SH, AcS, CO2H, hydroxycarbamoyl, N-hydroxyformamide, alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, benzyloxycarbamoyl, or P(O)(OH)CH2SR6, where R6 = aryl, pyridyl, or thiazolyl; R2 = biphenyl; R3 = alkyl, cycloalkyl, aralkyl, alkylpyridyl, or alkylthiazolyl; R7 = 4-pyridyl or optionally substituted phenyl; p = 0; X = (CH2)mY(CH2)n, where Y = O, S, or single bond, m, n = 0-4 (m + n = 0-4)] and their pharmaceutically acceptable salts were prepd. The peptides <b>inhibit</b> matrix metalloproteases such as stromelysin, gelatinase, matrilysin and collagenase and are useful in the treatment of mammals having disease states alleviated by the <b>inhibition</b> of such matrix metalloproteases. Thus, N-[2R-[(tert-butoxycarbonyl)methyl]-5-(4-biphenyl)pentanoyl]-D(or L)-.beta.-hydroxyvaline-N'-phenylcarboxamide was prepd. via coupling of DL-.beta.-hydroxyvaline-N'-phenylcarboxamide with the substituted pentanoic acid, with sepn. of the diastereomers by radial chromatog.			
IT	5467-74-3, 4-Bromophenylboronic acid RL: RCT (Reactant) (prepn. of peptides as matrix metalloprotease <b>inhibitors</b> )			
IT	169322-28-5P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of peptides as matrix metalloprotease <b>inhibitors</b> )			
REFERENCE COUNT:		73	THERE ARE 73 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT	

L28 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:405112 HCAPLUS

DOCUMENT NUMBER: 131:56155

TITLE: Methods for the simultaneous identification of novel biological targets and lead structures for drug development using combinatorial libraries and probes

INVENTOR(S): Heefner, Donald L.; Zepp, Charles M.; Gao, Yun; Jones, Steven W.

PATENT ASSIGNEE(S): Sepracor Inc., USA

SOURCE: PCT Int. Appl., 125 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9931267	A1	19990624	WO 1998-US26894	19981218
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM,			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9919256	A1	19990705	AU 1999-19256	19981218
EP 1049796	A1	20001108	EP 1998-964053	19981218
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
PRIORITY APPLN. INFO.:			US 1997-68035 P 19971218	
			WO 1998-US26894 W 19981218	

AB The combinatorial screening assays and detection methods of the present invention encompass highly diversified libraries of compds. which act as fingerprints to allow for the identification of specific mol. differences existing between biol. samples. The combinatorial screening assay and detection methods of the present invention utilize highly diversified libraries of compds. to interrogate and characterize complex mixts. in order to identify specific mol. differences existing between biol. samples, which may serve as targets for diagnosis of development of therapeutics. The invention is base, in part, on the design of sensitive, rapid, homogeneous assay systems that permit the evaluation, interrogation, and characterization of samples using complex, highly diversified libraries of mol. probes. The ability to run the high throughput assays in a homogeneous format increases sensitivity of screening. In addn., the homogeneous format allows the mols. which interact to maintain their native or active conformations. Moreover, the homogeneous assay systems of the invention utilize robust detection systems that do not require sepn. steps for detection of reaction products. The assays of the invention can be used for diagnostics, drug screening and discovery, target-driven discover, and in the field of proteomics and genomics for the identification of disease markers and drug targets.

IT 121086-10-0, BODIPY FL-NAPS 135243-34-4, BODIPY FL PPHT 137759-83-2 151736-99-1, Cholesteryl-BODIPY FL C12 175799-93-6, BODIPY FL-prazosin 212116-60-4, BODIPY FL-forskolin 216483-91-9, Ro.1986-BODIPY 216483-92-0,

BODIPY FL-amiloride 216571-97-0, BODIPY FL-ABT  
 216571-99-2, BODIPY FL-thapsigargin 216572-00-8, BODIPY  
 FL-X ryanodine 217189-42-9, (+)-DM-BODIPY dihydropyridine  
 217189-43-0, (-)-DM-BODIPY dihydropyridine 217189-44-1,  
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 pirenzepine 228265-62-1, BODIPY FL-CGP 12177 228265-63-2  
 , BODIPY FL C12-MPP 228265-94-9, BODIPY FL-Sch 23390

RL: ARG (Analytical reagent use); ARU (Analytical role, unclassified); BPR  
 (Biological process); THU (Therapeutic use); ANST (Analytical study); BIOL  
 (Biological study); PROC (Process); USES (Uses)

(identification of novel biol. targets and lead structures for drug  
 development using combinatorial libraries and probes)

IT 228112-32-1

RL: ARU (Analytical role, unclassified); BPR (Biological process); ANST  
 (Analytical study); BIOL (Biological study); PROC (Process)

(identification of novel biol. targets and lead structures for drug  
 development using combinatorial libraries and probes)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:476742 HCAPLUS

DOCUMENT NUMBER: 125:143320

TITLE: Prepn. of peptides as matrix metalloprotease  
**inhibitors**

INVENTOR(S): Castelhana, Arlindo L.; Bender, Steven L.; Deal,  
 Judith G.; Horne, Stephen; Liak, Teng J.; Yuan,  
 Zhengyu

PATENT ASSIGNEE(S): Syntex (U.S.A.) Inc., USA; Agouron Pharmaceuticals,  
 Inc.

SOURCE: PCT Int. Appl., 152 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9616027	A1	19960530	WO 1995-US15530	19951121
W:	AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
US 6037472	A	20000314	US 1994-343158	19941122
AU 9642897	A1	19960617	AU 1996-42897	19951121
AU 705439	B2	19990520		
EP 793643	A1	19970910	EP 1995-941493	19951121
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE			
BR 9509802	A	19970930	BR 1995-9802	19951121
JP 10509719	T2	19980922	JP 1996-517109	19951121
RU 2163232	C2	20010220	RU 1997-110062	19951121
FI 9702160	A	19970522	FI 1997-2160	19970521
NO 9702307	A	19970722	NO 1997-2307	19970521
PRIORITY APPLN. INFO.:			US 1994-343158	A 19941122
			US 1993-147811	B2 19931104



WO 1995-US15530 W 19951121

OTHER SOURCE(S): MARPAT 125:143320

AB Peptides R1CH2CH(XR2)CONHCHR3CONH(CH2)pR7 [R1 = SH, AcS, CO2H, etc.; R2 = alkyl, cycloalkyl, aryl, heterocycloalkyl, heteroaryl; R3 = alkyl, cycloalkyl, aralkyl, heteroaralkyl; R7 = aryl, heteroaryl, heterocycloalkyl; p = 0-4; X = (CH2)mY(CH2)n, where Y = O, S, or single bond, m, n = 0-4 (m + n = 0-4)] and their pharmaceutically acceptable salts were prepd. The peptides **inhibit** matrix metalloproteases such as stromelysin, gelatinase, matrilysin and collagenase and are useful in the treatment of mammals having disease states alleviated by the **inhibition** of such matrix metalloproteases. Thus, N-[2R-[(tert-butoxycarbonyl)methyl]-5-(4-biphenyl)pentanoyl]-D(or L)-.beta.-hydroxyvaline-N'-phenylcarboxamide was prepd. via coupling of DL-.beta.-hydroxyvaline-N'-phenylcarboxamide with the substituted pentanoic acid, with sepn. of the diastereomers by radial chromatog.

IT 5467-74-3, 4-Bromophenylboronic acid

RL: RCT (Reactant)

(prepn. of peptides as matrix metalloprotease **inhibitors**)

IT 169322-28-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of peptides as matrix metalloprotease **inhibitors**)

L28 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1989:549336 HCAPLUS

DOCUMENT NUMBER: 111:149336

TITLE: Structural analysis of specificity: .alpha.-lytic protease complexes with analogs of reaction intermediates

AUTHOR(S): Bone, Roger; Frank, Dan; Kettner, Charles A.; Agard, David A.

CORPORATE SOURCE: Howard Hughes Med. Inst., Univ. California, San Francisco, CA, 94143-0048, USA

SOURCE: Biochemistry (1989), 28(19), 7600-9  
CODEN: BICHAW; ISSN: 0006-2960

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To better understand the structural basis of enzyme specificity, the structures of complexes formed between .alpha.-lytic protease, an extracellular serine protease of *Lysobacter* enzymogenes, and 5 **inhibitory** peptide boronic acids [R2-boroX, where R2 is methoxysuccinyl-Ala-Ala-Pro- and boroX is the .alpha.-aminoboronic acid analog of alanine (Ala), valine (Val), isoleucine (Ile), norleucine (Nle), or phenylalanine (Phe)] were studied at high resoln. by x-ray crystallog. The enzyme has primary specificity for Ala in the P1 position of peptide substrates with catalytic efficiency decreasing with increasing side-chain vol. Enzyme affinity for **inhibitors** with boroVal, boroIle, and boroPhe residues was much higher than expected on the basis of the catalytic efficiencies of homologous substrates. Covalent tetrahedral adducts were formed between the active-site serine and the boronic acid moieties of R2-boroAla, R2-boroVal, R2-boroIle and R2-boroNle. Although R2-boroVal is a slowly bound **inhibitor** and R2-boroAla is rapidly bound, there appeared to be no structural differences that could account for slow binding. The removal from soln. of 20% more hydrophobic surface on binding accounted for the improved affinity of .alpha.-lytic protease for R2-boroVal relative to R2-boroAla. The high affinity of the enzyme for R2-boroIle derived from the selective binding of the L-allo stereoisomer of the boroIle residue, which could avoid bad steric interactions in the binding pocket. Although R2-boroNle buried as much hydrophobic surface as R2-boroVal, its larger side-chain caused

alterations in enzyme conformation and **inhibitor** position, leading to a distortion of H-bonds between the enzyme and **inhibitor**. A trigonal adduct was formed between the active site serine and the boronic acid moiety of R2-boroPhe in which the catalytic histidine occupied a position axial to the plane of the trigonal adduct. The histidine N.epsilon.2 atom was 2.2 .ANG. from the B atom, suggesting that a coordinate covalent bond was formed.

IT 94293-78-4 97532-27-9 97590-10-8  
97590-11-9 122722-99-0

RL: BIOL (Biological study)  
(alpha-lytic protease binding of, selectivity of, structure in relation to)

IT 72682-73-6

RL: RCT (Reactant)  
(reaction of, with .alpha.-lytic protease, kinetics of, structure in relation to)

=> select hit rn 127 1;select hit rn 128 1-4  
E1 THROUGH E1 ASSIGNED

E2 THROUGH E28 ASSIGNED

=> fil reg

FILE 'REGISTRY' ENTERED AT 20:36:50 ON 01 MAR 2002  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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STRUCTURE FILE UPDATES: 28 FEB 2002 HIGHEST RN 397241-73-5  
DICTIONARY FILE UPDATES: 28 FEB 2002 HIGHEST RN 397241-73-5

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

The P indicator for Preparations was not generated for all of the CAS Registry Numbers that were added to the H/Z/CA/CAplus files between 12/27/01 and 1/23/02. Use of the P indicator in online and SDI searches during this period, either directly appended to a CAS Registry Number or by qualifying an L-number with /P, may have yielded incomplete results. As of 1/23/02, the situation has been resolved. Also, note that searches conducted using the PREP role indicator were not affected.

Customers running searches and/or SDIs in the H/Z/CA/CAplus files incorporating CAS Registry Numbers with the P indicator between 12/27/01 and 1/23/02, are encouraged to re-run these strategies. Contact the CAS Help Desk at 1-800-848-6533 in North America or 1-614-447-3698, worldwide, or send an e-mail to [help@cas.org](mailto:help@cas.org) for further assistance or to receive a credit for any duplicate searches.

=>

=>

=> s e1-e28

1 210907-57-6/BI  
    (210907-57-6/RN)  
1 169322-28-5/BI  
    (169322-28-5/RN)  
1 5467-74-3/BI  
    (5467-74-3/RN)  
1 121086-10-0/BI  
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1 122722-99-0/BI  
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1 135243-34-4/BI  
    (135243-34-4/RN)  
1 137759-83-2/BI  
    (137759-83-2/RN)  
1 151736-99-1/BI  
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1 175799-93-6/BI  
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1 97590-10-8/BI

(97590-10-8/RN)  
 1 97590-11-9/BI  
 (97590-11-9/RN)  
 L29 28 (210907-57-6/BI OR 169322-28-5/BI OR 5467-74-3/BI OR 121086-10-0/BI OR 122722-99-0/BI OR 135243-34-4/BI OR 137759-83-2/BI OR 151736-99-1/BI OR 175799-93-6/BI OR 212116-60-4/BI OR 216483-91-9/BI OR 216483-92-0/BI OR 216571-97-0/BI OR 216571-99-2/BI OR 216572-00-8/BI OR 217189-42-9/BI OR 217189-43-0/BI OR 217189-44-1/BI OR 228112-32-1/BI OR 228265-61-0/BI OR 228265-62-1/BI OR 228265-63-2/BI OR 228265-94-9/BI OR 72682-73-6/BI OR 94293-78-4/BI OR 97532-27-9/BI OR 97590-10-8/BI OR 97590-11-9/BI)

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=&gt; d ide can 129 1-28

L29 ANSWER 1 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 228265-94-9 REGISTRY

CN Boron, [N-[4-[(1R)-7-chloro-2,3,4,5-tetrahydro-8-hydroxy-3-methyl-1H-3-benzazepin-1-yl]phenyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)-(9CI) (CA INDEX NAME)

OTHER NAMES:

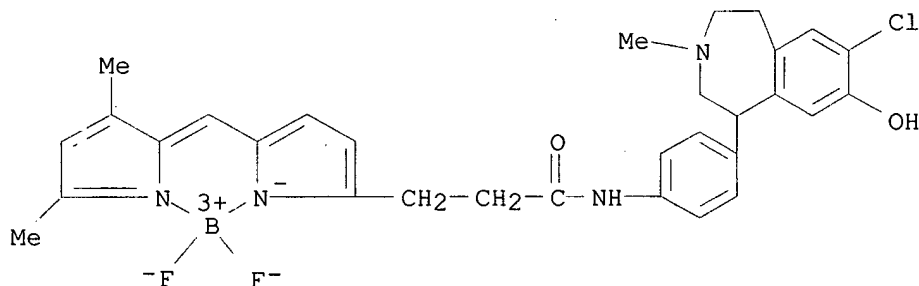
CN BODIPY FL-Sch 23390

MF C31 H32 B Cl F2 N4 O2

CI CCS

SR CA

LC STN Files: BIOSIS, CA, CAPLUS, CHEMCATS, TOXCENTER



1 REFERENCES IN FILE CA (1967 TO DATE)

2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 2 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 228265-63-2 REGISTRY

CN Boron, [rel-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-N-[(1R,2R)-2-hydroxy-1-(4-morpholinylmethyl)-2-phenylethyl]-1H-pyrrole-2-dodecanamidato-.kappa.N1]difluoro-, monohydrochloride, (T-4)-(9CI) (CA INDEX NAME)

OTHER NAMES:

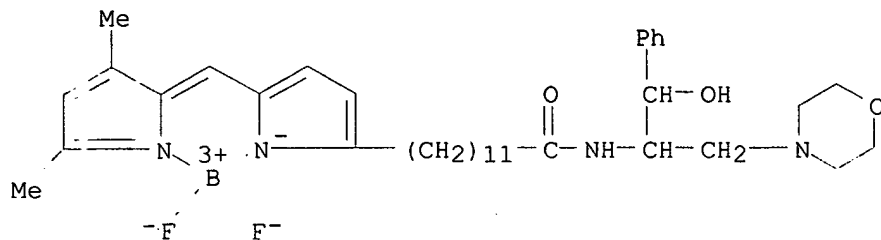
CN BODIPY FL C12-MPP

MF C36 H51 B F2 N4 O3 . Cl H

CI CCS

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER



● HCl

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 3 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 228265-62-1 REGISTRY

CN Boron, [N-[1-[4-[[3-[(2,3-dihydro-2-oxo-1H-benzimidazol-4-yl)oxy]-2-hydroxypropyl]amino]-4-methylcyclohexyl]-1-methylethyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN BODIPY FL-CGP 12177

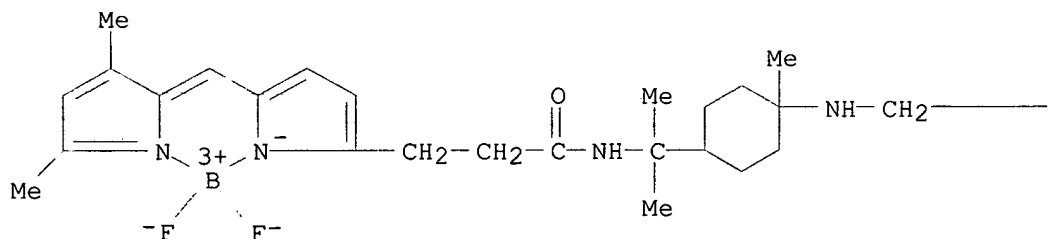
MF C34 H45 B F2 N6 O4

CI CCS

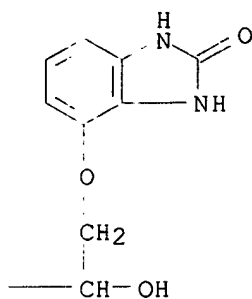
SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 4 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN **228265-61-0** REGISTRY

CN Boron, [N-[5-[4-[2-(5,6-dihydro-6-oxo-11H-pyrido[2,3-b][1,4]benzodiazepin-11-yl)-2-oxoethyl]-1-piperazinyl]pentyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, dihydrochloride, (T-4)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN BODIPY FL pirenzepine

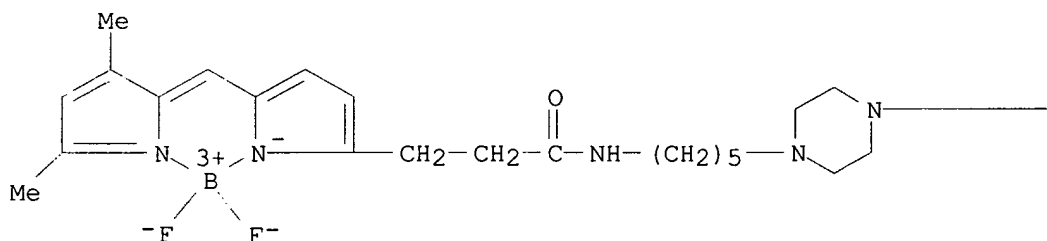
MF C37 H43 B F2 N8 O3 . 2 Cl H

CI CCS

SR CA

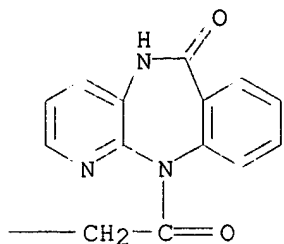
LC STN Files: CA, CAPLUS, TOXCENTER

PAGE 1-A



● 2 HCl

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1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 5 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 228112-32-1 REGISTRY

CN L-Tyrosine, N-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]-L-methionyl-2-aminobenzoyl- (9CI)  
(CA INDEX NAME)

FS STEREOSEARCH

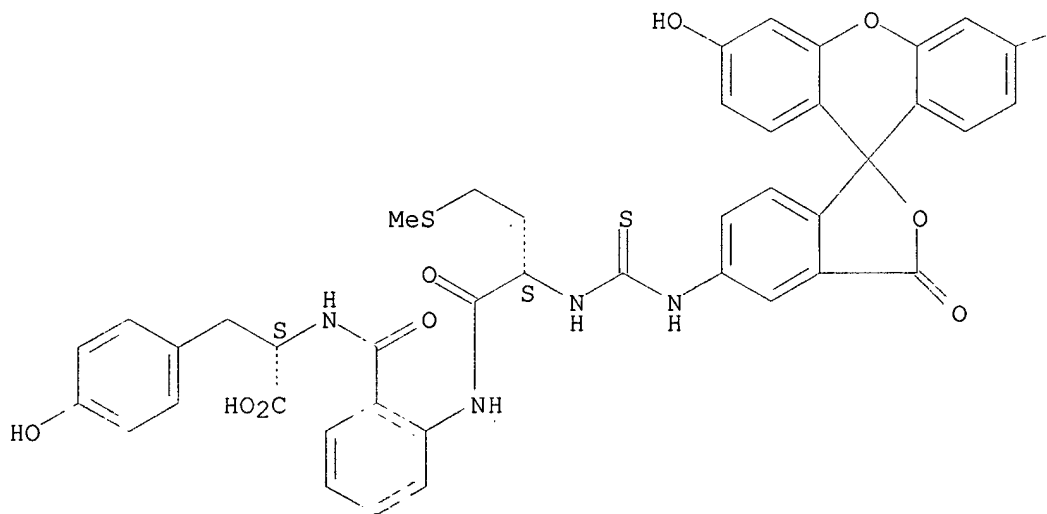
MF C42 H36 N4 O10 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—OH

1 REFERENCES IN FILE CA (1967 TO DATE)

## 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 6 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 217189-44-1 REGISTRY

CN Boron, [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-N-[(1S,2R,3E)-1-[(.beta.-D-galactopyranosyloxy)methyl]-2-hydroxy-3-heptadecenyl]-1H-pyrrole-2-dodecanamidato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

## OTHER NAMES:

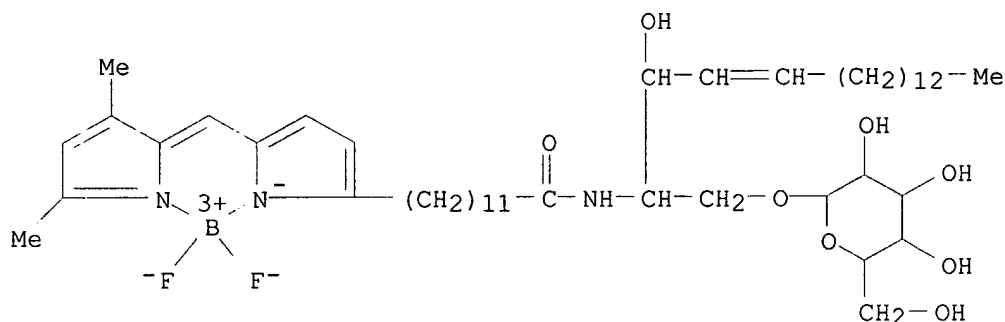
CN BODIPY FL C12-galactocerebroside

MF C47 H78 B F2 N3 O8

CI CCS

SR CAS Registry Services

LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER



1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 7 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 217189-43-0 REGISTRY

CN Boron, [2-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]ethyl ethyl (4R)-1,4-dihydro-2,6-dimethyl-4-[2-(trifluoromethyl)phenyl]-3,5-pyridinedicarboxylato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN (-)-DM-BODIPY dihydropyridine

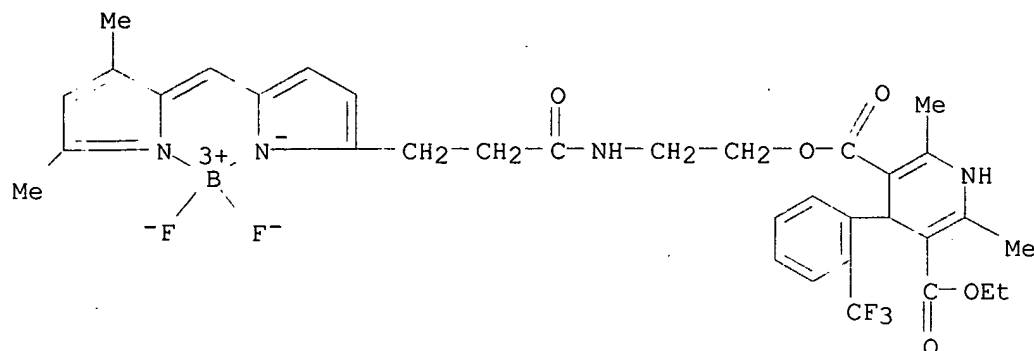
MF C34 H36 B F5 N4 O5

CI CCS

SR CAS Registry Services

LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER





1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 8 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 217189-42-9 REGISTRY

CN Boron, [2-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]ethyl ethyl (4S)-1,4-dihydro-2,6-dimethyl-4-[2-(trifluoromethyl)phenyl]-3,5-pyridinedicarboxylato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

OTHER NAMES:

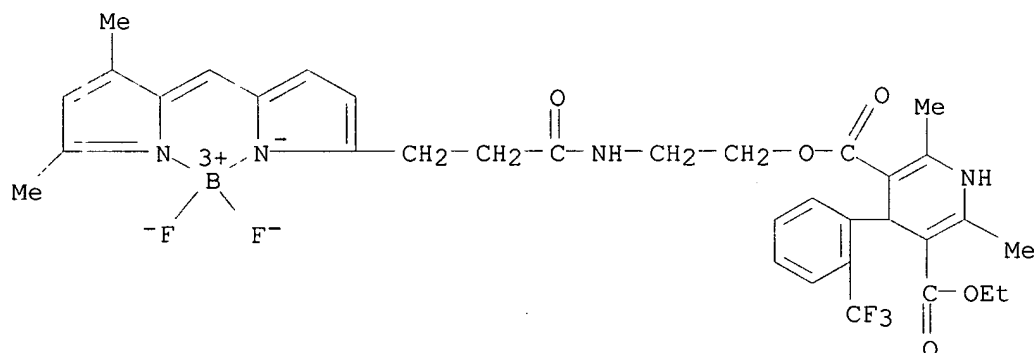
CN (+)-DM-BODIPY dihydropyridine

MF C34 H36 B F5 N4 O5

CI CCS

SR CAS Registry Services

LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER



1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 9 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 216572-00-8 REGISTRY

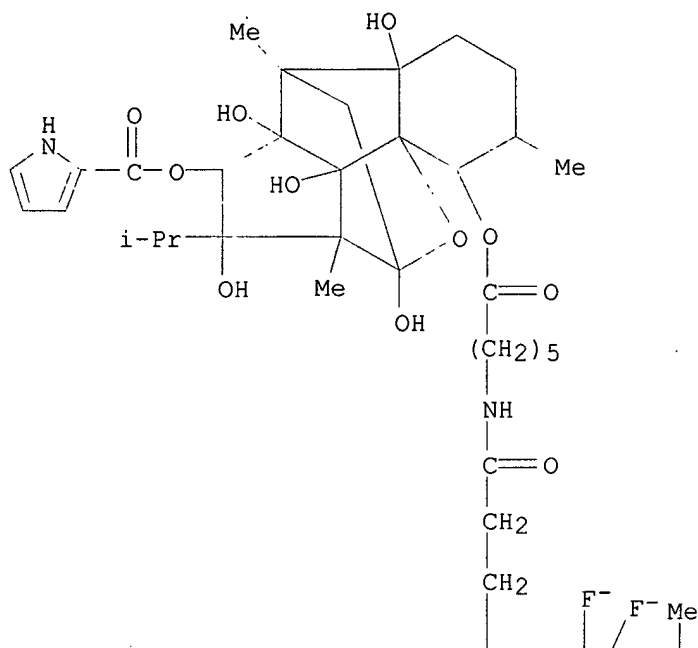
CN Boron, [(3S,4R,4aR,6S,6aS,7S,8R,8aS,8bR,9S,9aS)-4-[[6-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-

oxopropyl]amino]-1-oxohexyl]oxy]dodecahydro-6,7,8a,8b,9a-pentahydroxy-3,6a,9-trimethyl-7-(1-methylethyl)-6,9-methanobenzo[1,2]pentaleno[1,6-bc]furan-8-yl 1H-pyrrole-2-carboxylate]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

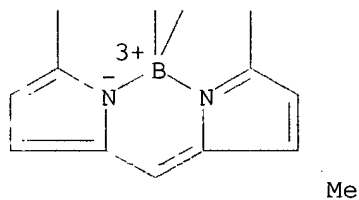
OTHER NAMES:

CN BODIPY FL-X ryanodine  
MF C45 H59 B F2 N4 O11  
CI CCS  
SR CAS Registry Services  
LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER

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1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

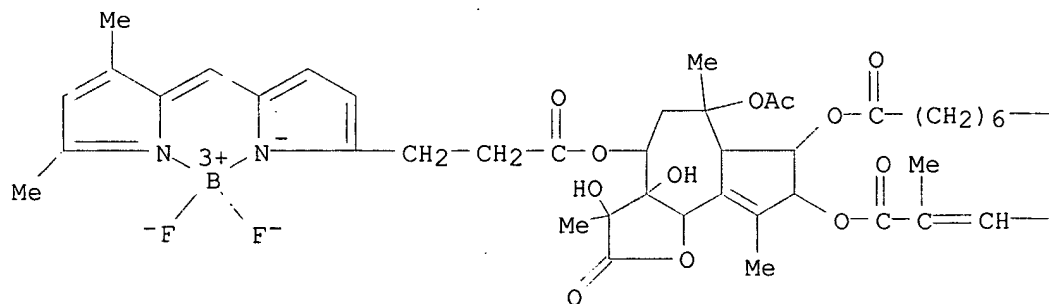
L29 ANSWER 10 OF 28 REGISTRY COPYRIGHT 2002 ACS  
RN 216571-99-2 REGISTRY

CN Boron, [(3S, 3aR, 4S, 6S, 6aR, 7S, 8S, 9bS)-6-(acetyloxy)-2, 3, 3a, 4, 5, 6, 6a, 7, 8, 9b-decahydro-3, 3a-dihydroxy-3, 6, 9-trimethyl-8-[[ (2Z)-2-methyl-1-oxo-2-butenyl]oxy]-2-oxo-7-[(1-oxooctyl)oxy]azuleno[4, 5-b]furan-4-yl 5-[(3, 5-dimethyl-1H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanoato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN BODIPY FL-thapsigargin  
MF C44 H57 B F2 N2 O12  
CI CCS  
SR CAS Registry Services  
LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER

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1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 11 OF 28 REGISTRY COPYRIGHT 2002 ACS

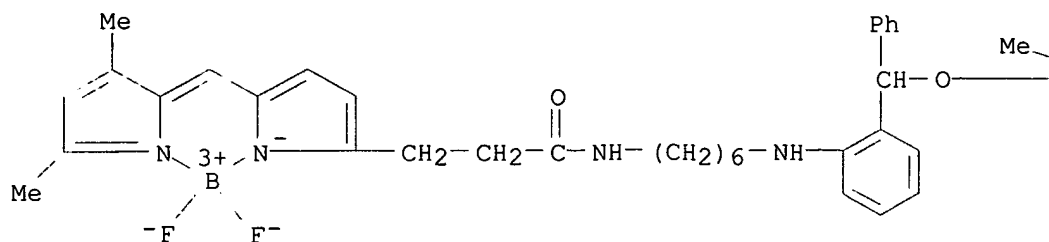
RN 216571-97-0 REGISTRY

CN Boron, difluoro[N-[6-[[2-[[ (8-methyl-8-azabicyclo[3.2.1]oct-3-yl)oxy]phenylmethyl]phenyl]amino]hexyl]-5-[(3, 5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]-, (T-4)- (9CI) (CA INDEX NAME)

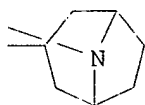
## OTHER NAMES:

CN BODIPY FL-ABT  
MF C41 H52 B F2 N5 O2  
CI CCS  
SR CAS Registry Services  
LC STN Files: CA, CAPLUS, TOXCENTER

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 12 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 216483-92-0 REGISTRY

CN Boron, [3,5-diamino-6-chloro-N-[[[4-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]butyl]amino]iminomethyl]pyrazinecarboxamidato]difluoro-, monohydrochloride, (T-4)- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN BODIPY FL-amiloride

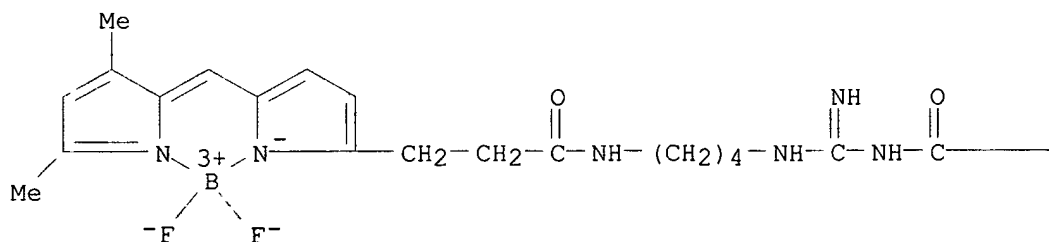
MF C24 H30 B Cl F2 N10 O2 . Cl H

CI CCS

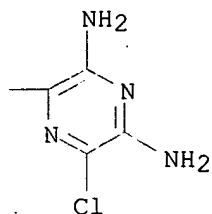
SR CAS Registry Services

LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER

PAGE 1-A



● HCl



1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

L29 ANSWER 13 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN **216483-91-9** REGISTRY

CN Boron, [N-[2-[7-chloro-5-(2-fluorophenyl)-2,3-dihydro-2-oxo-1H-1,4-benzodiazepin-1-yl]ethyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)-(9CI) (CA INDEX NAME)

OTHER NAMES:

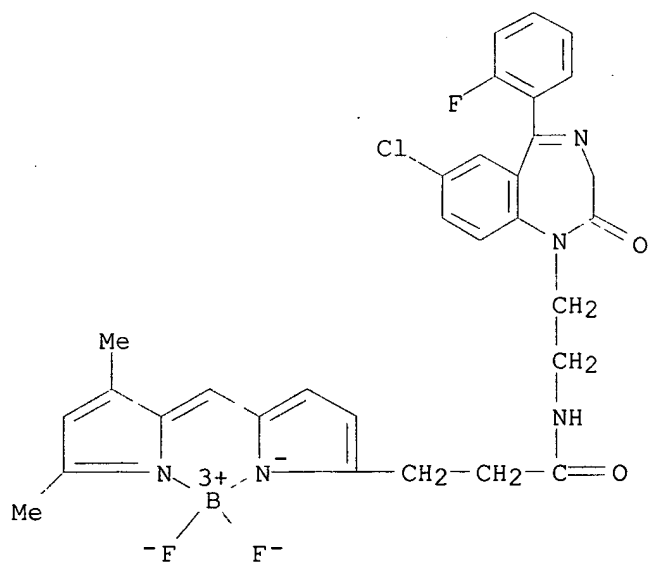
CN Ro 1986-BODIPY

MF C31 H28 B Cl F3 N5 O2

CI CCS

SR CAS Registry Services

LC STN Files: CA, CAPLUS, TOXCENTER, TOXLIT



3 REFERENCES IN FILE CA (1967 TO DATE)

3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 133:145022

REFERENCE 2: 132:217068

REFERENCE 3: 131:56155

L29 ANSWER 14 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 212116-60-4 REGISTRY

CN Boron, [(3R,4aR,5S,6S,6aS,10S,10aR,10bS)-3-ethenyldodecahydro-6,10,10b-trihydroxy-3,4a,7,7,7a-pentamethyl-1-oxo-1H-naphtho[2,1-b]pyran-5-yl 4-[[2-[[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]amino]ethyl]amino]-4-oxobutanoato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN BODIPY FL-forskolin

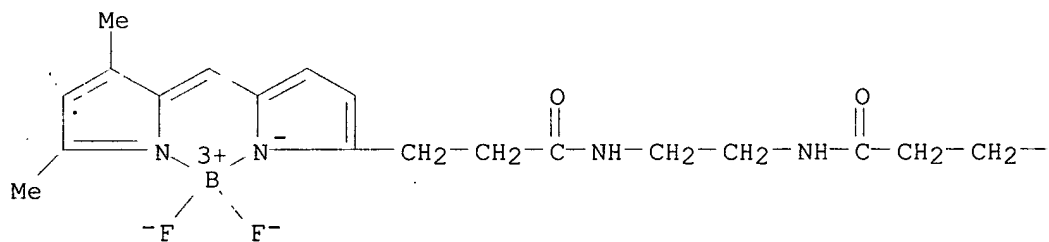
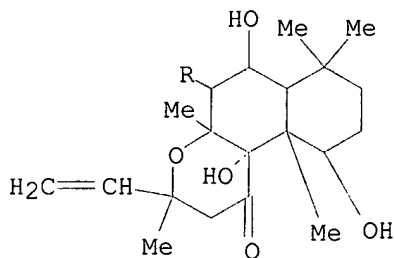
MF C40 H55 B F2 N4 O9

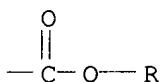
CI CCS

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

PAGE 1-A





2 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

REFERENCE 2: 129:200896

L29 ANSWER 15 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN **210907-57-6** REGISTRY

CN Boronic acid, [dithiobis[(1-oxo-4,1-butanediyl)imino-3,1-phenylene]]bis-(9CI) (CA INDEX NAME)

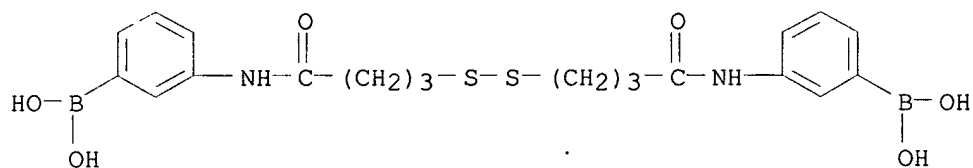
OTHER NAMES:

CN Bis(3-((3-boronophenyl)carbamoyl)propyl) disulfide

MF C20 H26 B2 N2 O6 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 129:149097

L29 ANSWER 16 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN **175799-93-6** REGISTRY

CN Boron, [1-(4-amino-6,7-dimethoxy-2-quinazolinyl)-4-[3-[5-[(3,5-dimethyl-2H-

pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrol-2-yl-.kappa.N]-1-oxopropyl]piperazinato]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

CN Boron, [1-(4-amino-6,7-dimethoxy-2-quinazolinyl)-4-[3-[5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-1H-pyrrol-2-yl]-1-oxopropyl]piperazinato]difluoro-, (T-4)-

## OTHER NAMES:

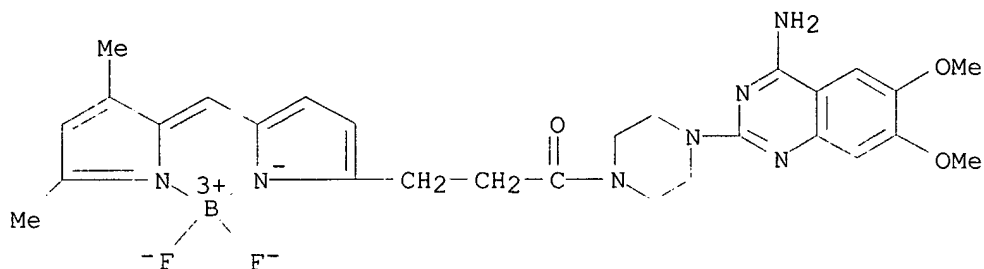
CN BODIPY FL prazosin

MF C28 H32 B F2 N7 O3

CI CCS

SR CA

LC STN Files: BIOSIS, CA, CAPLUS, CHEMCATS, TOXCENTER, TOXLIT



5 REFERENCES IN FILE CA (1967 TO DATE)

5 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:157934

REFERENCE 2: 131:295533

REFERENCE 3: 131:56155

REFERENCE 4: 129:255117

REFERENCE 5: 124:279343

L29 ANSWER 17 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 169322-28-5 REGISTRY

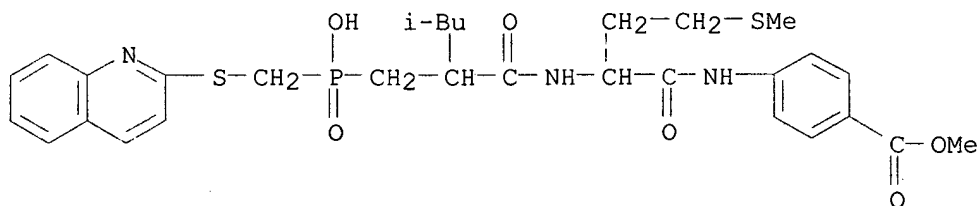
CN Benzoic acid, 4-[[2-[[2-[[hydroxy[(2-quinolinylthio)methyl]phosphinyl]methyl]-4-methyl-1-oxopentyl]amino]-4-(methylthio)-1-oxobutyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C30 H38 N3 O6 P S2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL





\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1967 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:208142

REFERENCE 2: 125:143320

REFERENCE 3: 124:24881

L29 ANSWER 18 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 151736-99-1 REGISTRY

CN Boron, [(3.beta.)-cholest-5-en-3-yl 5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-1H-pyrrole-2-dodecanoato-.kappa.N1,.kappa.N5]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Boron, [(3.beta.)-cholest-5-en-3-yl 5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-1H-pyrrole-2-dodecanoato-N1,N5]difluoro-, (T-4)-

CN Cholestane, boron deriv.

OTHER NAMES:

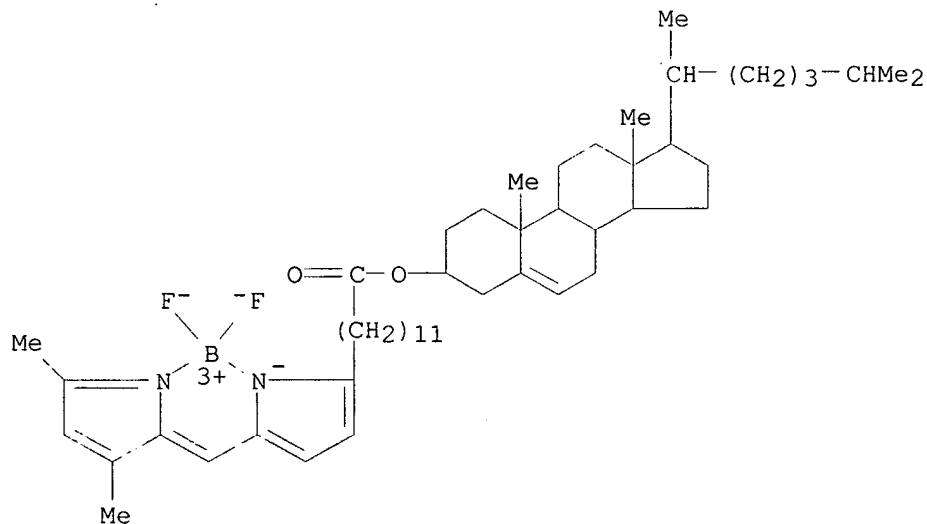
CN Cholesteryl-BODIPY FL C12

MF C50 H77 B F2 N2 O2

CI CCS

SR CA

LC STN Files: CA, CAPLUS, CHEMCATS, MEDLINE, TOXCENTER, TOXLIT, USPATFULL



4 REFERENCES IN FILE CA (1967 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:9620

REFERENCE 2: 131:56155

REFERENCE 3: 131:56154

REFERENCE 4: 120:3825

L29 ANSWER 19 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 137759-83-2 REGISTRY

CN Boron, [N-[2-(3,4-dimethoxyphenyl)-5-[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]-2-(1-methylethyl)pentyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-1H-pyrrole-2-propanamido-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Boron, [N-[2-(3,4-dimethoxyphenyl)-5-[[2-(3,4-dimethoxyphenyl)ethyl]methylamino]-2-(1-methylethyl)pentyl]-5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-1H-pyrrole-2-propanamido-N1,N5]difluoro-, (T-4)-

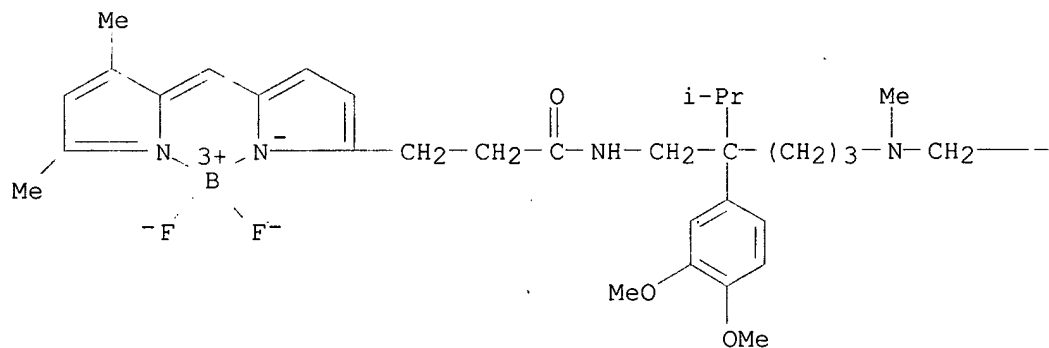
MF C41 H55 B F2 N4 O5

CI CCS, COM

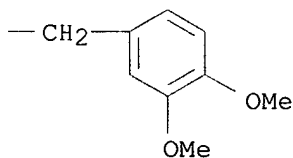
SR CA

LC STN Files: CA, CANCERLIT, CAPLUS, MEDLINE, TOXCENTER, TOXLIT

PAGE 1-A



PAGE 1-B



5 REFERENCES IN FILE CA (1967 TO DATE)  
5 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155

REFERENCE 2: 130:62541

REFERENCE 3: 123:152658

REFERENCE 4: 123:132363

REFERENCE 5: 116:309

L29 ANSWER 20 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 135243-34-4 REGISTRY

CN Boron, [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-N-[4-[2-[propyl(1,2,3,4-tetrahydro-5-hydroxy-2-naphthalenyl)amino]ethyl]phenyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1H-Pyrrole-2-propanamide, 5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-N-[4-[2-[propyl(1,2,3,4-tetrahydro-5-hydroxy-2-naphthalenyl)amino]ethyl]phenyl]-, boron complex

CN Boron, [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-N-[4-[2-[propyl(1,2,3,4-tetrahydro-5-hydroxy-2-naphthalenyl)amino]ethyl]phenyl]-1H-pyrrole-2-propanamidato-N1,N5]difluoro-, (T-4)-

OTHER NAMES:

CN BODIPY FL PPHT

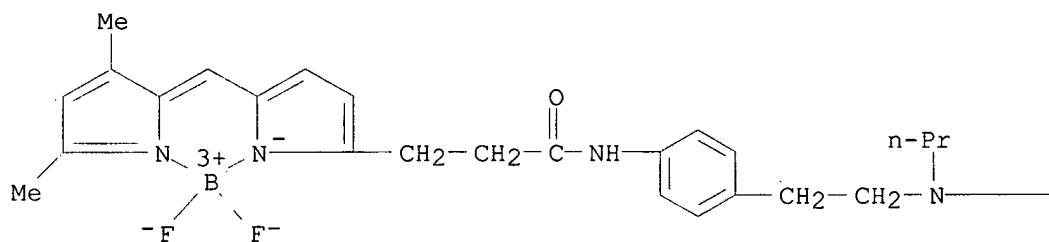
MF C35 H41 B F2 N4 O2

CI CCS

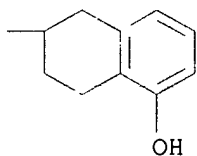
SR CA

LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER

PAGE 1-A



PAGE 1-B



3 REFERENCES IN FILE CA (1967 TO DATE)

3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

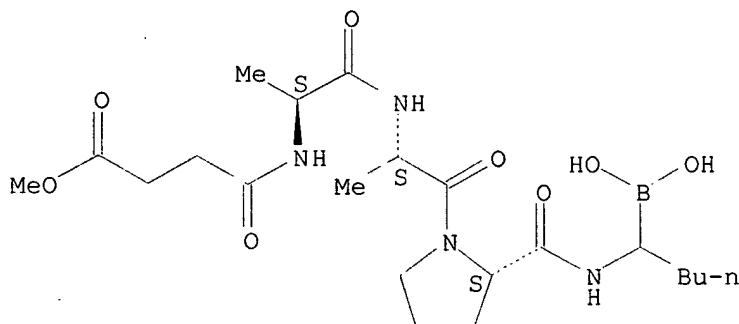
REFERENCE 1: 131:56155

REFERENCE 2: 115:109751

REFERENCE 3: 115:109750

L29 ANSWER 21 OF 28 REGISTRY COPYRIGHT 2002 ACS  
 RN 122722-99-0 REGISTRY  
 CN L-Prolinamide, N-(4-methoxy-1,4-dioxobutyl)-L-alanyl-L-alanyl-N-(1-boronopentyl)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C21 H37 B N4 O8  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 115:201828

REFERENCE 2: 111:149336

L29 ANSWER 22 OF 28 REGISTRY COPYRIGHT 2002 ACS  
 RN 121086-10-0 REGISTRY  
 CN Boron, [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene-.kappa.N)methyl]-N-[4-[2-[8-[4-(4-fluorophenyl)-4-oxobutyl]-4-oxo-1-phenyl-1,3,8-triazaspiro[4.5]dec-3-yl]ethyl]phenyl]-1H-pyrrole-2-propanamidato-.kappa.N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

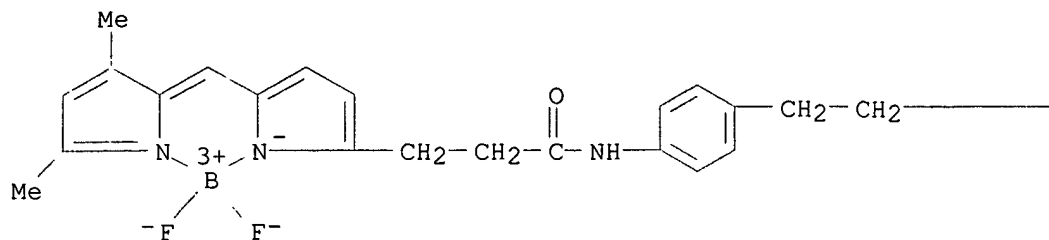
CN 1,3,8-Triazaspiro[4.5]decane, 1H-pyrrole-2-propanamide deriv., boron complex  
 CN 1,3,8-Triazaspiro[4.5]decane, boron deriv.  
 CN 1H-Pyrrole-2-propanamide, 5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-N-[4-[2-[8-[4-(4-fluorophenyl)-4-oxobutyl]-4-oxo-1-phenyl-1,3,8-triazaspiro[4.5]dec-3-yl]ethyl]phenyl]-, boron complex  
 CN Boron, [5-[(3,5-dimethyl-2H-pyrrol-2-ylidene)methyl]-N-[4-[2-[8-[4-(4-fluorophenyl)-4-oxobutyl]-4-oxo-1-phenyl-1,3,8-triazaspiro[4.5]dec-3-yl]ethyl]phenyl]-1H-pyrrole-2-propanamidato-N1,N5]difluoro-, (T-4)-

OTHER NAMES:

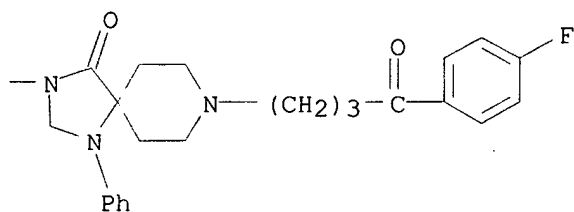
CN BODIPY FL-NAPS  
 MF C45 H48 B F3 N6 O3  
 CI CCS

SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER

PAGE 1-A



PAGE 1-B

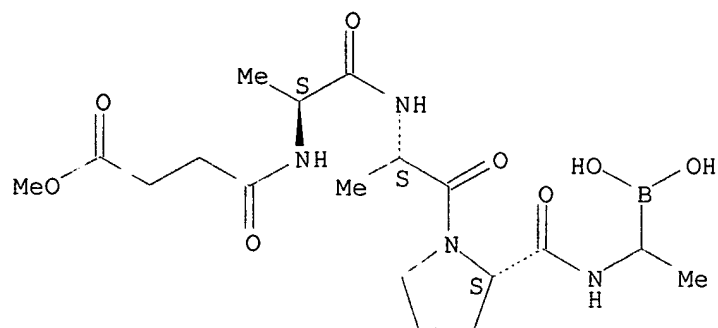


4 REFERENCES IN FILE CA (1967 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:56155  
REFERENCE 2: 115:109751  
REFERENCE 3: 115:109750  
REFERENCE 4: 111:3539

L29 ANSWER 23 OF 28 REGISTRY COPYRIGHT 2002 ACS  
RN 97590-11-9 REGISTRY  
CN L-Prolinamide, N-(4-methoxy-1,4-dioxobutyl)-L-alanyl-L-alanyl-N-(1-boronoethyl)- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C18 H31 B N4 O8  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 115:201828

REFERENCE 2: 111:149336

REFERENCE 3: 103:71709

L29 ANSWER 24 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 97590-10-8 REGISTRY

CN L-Prolinamide, N-(4-methoxy-1,4-dioxobutyl)-L-alanyl-L-alanyl-N-(1-borono-2-phenylethyl)- (9CI) (CA INDEX NAME)

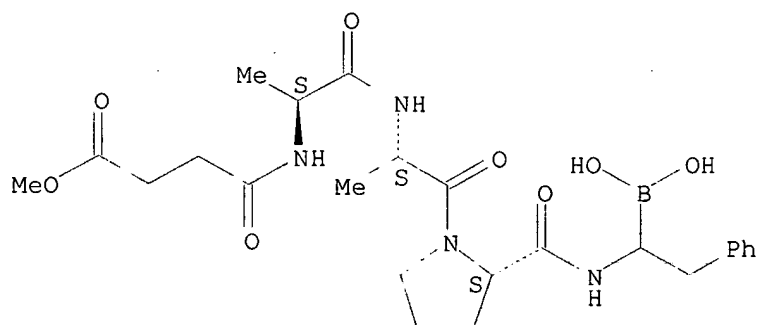
FS STEREOSEARCH

MF C24 H35 B N4 O8

SR CA

LC STN Files: CA, CAPLUS, MEDLINE, USPATFULL

Absolute stereochemistry.



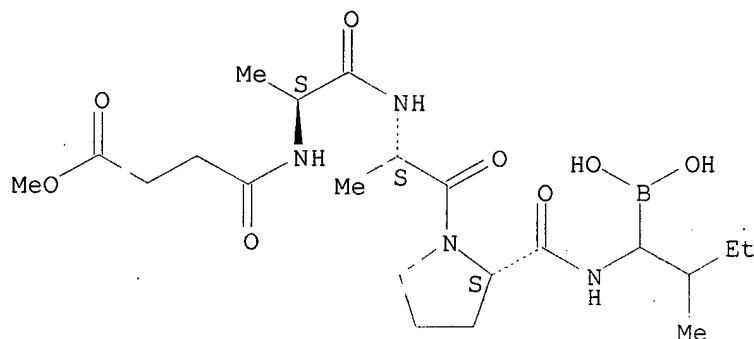
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
6 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 123:137188  
 REFERENCE 2: 119:265183  
 REFERENCE 3: 115:201828  
 REFERENCE 4: 112:3307  
 REFERENCE 5: 111:149336  
 REFERENCE 6: 103:71709

L29 ANSWER 25 OF 28 REGISTRY COPYRIGHT 2002 ACS  
 RN 97532-27-9 REGISTRY  
 CN L-Prolinamide, N-(4-methoxy-1,4-dioxobutyl)-L-alanyl-L-alanyl-N-(1-borono-2-methylbutyl)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C21 H37 B N4 O8  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



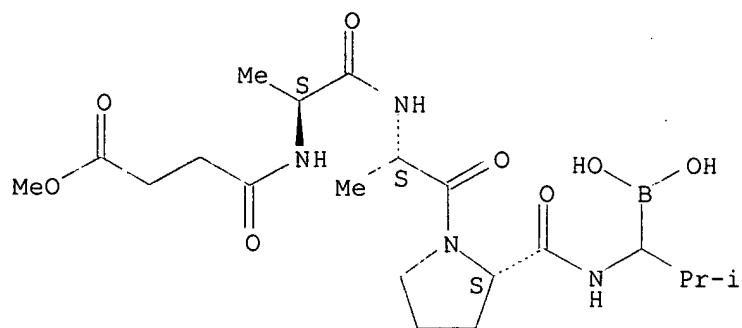
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1967 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 111:149336  
 REFERENCE 2: 103:71709

L29 ANSWER 26 OF 28 REGISTRY COPYRIGHT 2002 ACS  
 RN 94293-78-4 REGISTRY  
 CN L-Prolinamide, N-(4-methoxy-1,4-dioxobutyl)-L-alanyl-L-alanyl-N-(1-borono-2-methylpropyl)- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C20 H35 B N4 O8  
 LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

8 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 8 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 123:144640  
 REFERENCE 2: 119:265183  
 REFERENCE 3: 115:201828  
 REFERENCE 4: 112:231733  
 REFERENCE 5: 111:149336  
 REFERENCE 6: 109:145119  
 REFERENCE 7: 103:71709  
 REFERENCE 8: 102:58256

L29 ANSWER 27 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 72682-73-6 REGISTRY

CN L-Methioninamide, N-(3-carboxy-1-oxopropyl)-L-alanyl-L-alanyl-L-prolyl-N-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

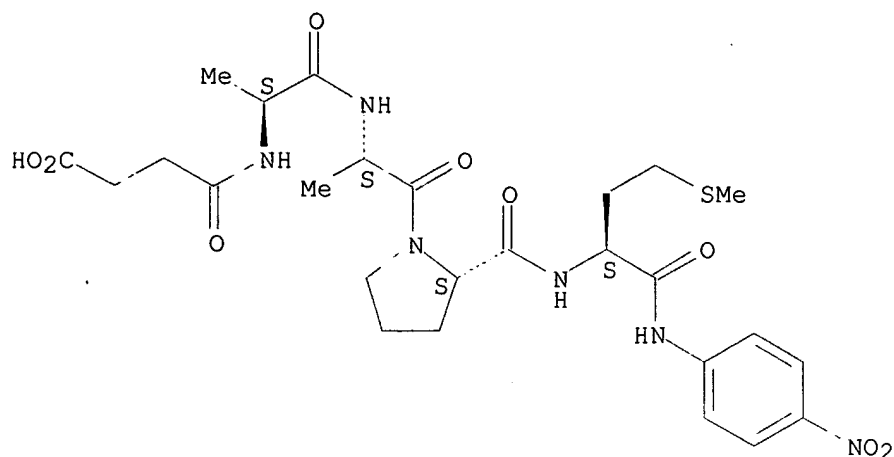
DR 71034-58-7

MF C26 H36 N6 O9 S

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.





17 REFERENCES IN FILE CA (1967 TO DATE)  
17 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:350344  
REFERENCE 2: 134:349832  
REFERENCE 3: 133:2006  
REFERENCE 4: 130:34916  
REFERENCE 5: 129:227371  
REFERENCE 6: 128:150986  
REFERENCE 7: 125:321588  
REFERENCE 8: 119:176474  
REFERENCE 9: 112:174711  
REFERENCE 10: 111:149336

L29 ANSWER 28 OF 28 REGISTRY COPYRIGHT 2002 ACS

RN 5467-74-3 REGISTRY

CN Boronic acid, (4-bromophenyl)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzeneboronic acid, p-bromo- (6CI, 7CI, 8CI)

OTHER NAMES:

CN (4-Bromophenyl)boronic acid

CN (p-Bromophenyl)boronic acid

CN 4-Bromobenzeneboronic acid

CN 4-Bromophenylboric acid

CN p-Bromobenzeneboronic acid

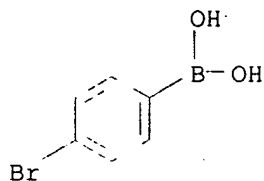
CN p-Bromophenylboric acid

MF C6 H6 B Br O2

CI COM

LC STN Files: BEILSTEIN\*, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT,  
CHEMCATS, CHEMLIST, CSCHEM, GMELIN\*, HODOC\*, IFICDB, IFIPAT, IFIUDB,  
MEDLINE, RTECS\*, SPECINFO, TOXCENTER, TOXLIT, USPATFULL

(\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

175 REFERENCES IN FILE CA (1967 TO DATE)  
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 176 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 136:7869  
 REFERENCE 2: 135:344573  
 REFERENCE 3: 135:272755  
 REFERENCE 4: 135:257270  
 REFERENCE 5: 135:210810  
 REFERENCE 6: 135:195157  
 REFERENCE 7: 135:177043  
 REFERENCE 8: 135:152366  
 REFERENCE 9: 135:137452  
 REFERENCE 10: 135:122368

=> fil hcaplus  
 FILE 'HCAPLUS' ENTERED AT 20:41:53 ON 01 MAR 2002  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 1 Mar 2002 VOL 136 ISS 10  
 FILE LAST UPDATED: 28 Feb 2002 (20020228/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

The P indicator for Preparations was not generated for all of the CAS Registry Numbers that were added to the CAS files between 12/27/01 and 1/23/02. As of 1/23/02, the situation has been resolved. Searches and/or SDIs in the H/Z/CA/CAplus files incorporating CAS Registry Numbers with the P indicator executed between 12/27/01 and 1/23/02 may be incomplete. See the NEWS message on this topic for more information.

=>

=>

=> d stat que 137 nos

```

L14          STR
L15          1335 SEA FILE=REGISTRY SSS FUL L14
L16          STR
L17          3 SEA FILE=REGISTRY SUB=L15 SSS FUL L16
L18          1 SEA FILE=REGISTRY ABB=ON PLU=ON BORON/CN
L19          79415 SEA FILE=REGISTRY ABB=ON PLU=ON BORON/BI
L20          660 SEA FILE=HCAPLUS ABB=ON PLU=ON L15
L21          SEL PLU=ON L18 1- CHEM :      8 TERMS
L22          179566 SEA FILE=HCAPLUS ABB=ON PLU=ON L21
L23          256538 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 OR L19
L24          11 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 AND L20
L25          5 SEA FILE=HCAPLUS ABB=ON PLU=ON L24 AND (?INHIBIT? OR ?TUMOR?
OR TUMOUR? OR ?CANCER? OR ?NEOPLAS? OR ?MALIGN?)
L26          4 SEA FILE=HCAPLUS ABB=ON PLU=ON L17
L27          1 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND (?INHIBIT? OR ?TUMOR?
OR TUMOUR? OR ?CANCER? OR ?NEOPLAS? OR ?MALIGN?)
L28          4 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 NOT L27
L32          2 SEA FILE=REGISTRY ABB=ON PLU=ON GROWTH(L)TUMOR(L)CELL?
L33          SEL PLU=ON L32 1- CHEM :      6 TERMS
L34          1 SEA FILE=HCAPLUS ABB=ON PLU=ON L33
L35          41672 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 OR GROWTH(L)TUMOR(L)CELL?

L36          1 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND L20
L37          1 SEA FILE=HCAPLUS ABB=ON PLU=ON L36 NOT (L27 OR L28)

```

=>

=>

=> d ibib abs hitrn 137 1

L37 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 1979:114924 HCAPLUS  
 DOCUMENT NUMBER: 90:114924  
 TITLE: Opposite effects of dextrans substituted with

AUTHOR(S):                   sulfhydryls or mercury on tumor growth  
 Pitha, Josef; Kociolek, Karol; Apffel, Charles A.  
 CORPORATE SOURCE:       Natl. Inst. Aging, NIH, Baltimore, Md., USA  
 SOURCE:                   Cancer Res. (1979), 39(1), 170-3  
                           CODEN: CNREA8; ISSN: 0008-5472

DOCUMENT TYPE:           Journal  
 LANGUAGE:                English

AB   Macromol. dextrans carrying substituents terminated by SH groups or arom. amines inhibited the **growth** of a fibrosarcoma and of a mammary adenocarcinoma in a syngeneic mouse model. These compds. had no or very low toxicity to animals and were nontoxic to fibrosarcoma **cells** in vitro. Small-mol.-wt. compds. carrying the same substituents as the above dextrans were without any effect on the **growth** of these **tumors**. A dextran substituted with Hg-contg. side chains was **growth** promoting for the same fibrosarcoma in mice at doses which were nontoxic for these animals. However, the Hg-contg. compd. was toxic to fibrosarcoma **cells** in vitro. Apparently, these nonpermeating macromols. do not directly influence the **tumor cells** in animals but modulate the natural system of defense against **tumors; cells** of that system were stimulated or poisoned by the substituted dextrans.

IT   69537-86-6D, reaction products with oxidized dextran  
       69537-87-7D, reaction products with oxidized dextran  
       RL: BAC (Biological activity or effector, except adverse); THU  
       (Therapeutic use); BIOL (Biological study); USES (Uses)  
       (neoplasm inhibition by)

=> select hit rn 137 1  
 E29 THROUGH E30 ASSIGNED

=> fil reg  
 FILE 'REGISTRY' ENTERED AT 20:42:18 ON 01 MAR 2002  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2002 American Chemical Society (ACS)

STRUCTURE FILE UPDATES:   28 FEB 2002   HIGHEST RN 397241-73-5  
 DICTIONARY FILE UPDATES:  28 FEB 2002   HIGHEST RN 397241-73-5

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES  
 for more information. See STNote 27, Searching Properties in the CAS  
 Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

The P indicator for Preparations was not generated for all of the  
 CAS Registry Numbers that were added to the H/Z/CA/CAPLUS files between  
 12/27/01 and 1/23/02. Use of the P indicator in online and SDI searches  
 during this period, either directly appended to a CAS Registry Number  
 or by qualifying an L-number with /P, may have yielded incomplete results.  
 As of 1/23/02, the situation has been resolved. Also, note that searches  
 conducted using the PREP role indicator were not affected.

Customers running searches and/or SDIs in the H/Z/CA/CAPLUS files incorporating CAS Registry Numbers with the P indicator between 12/27/01 and 1/23/02, are encouraged to re-run these strategies. Contact the CAS Help Desk at 1-800-848-6533 in North America or 1-614-447-3698, worldwide, or send an e-mail to help@cas.org for further assistance or to receive a credit for any duplicate searches.

=> s e29-e30

1 69537-86-6/BI  
(69537-86-6/RN)

1 69537-87-7/BI  
(69537-87-7/RN)

L38 2 (69537-86-6/BI OR 69537-87-7/BI)

=> d ide can l38 1-2

L38 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2002 ACS

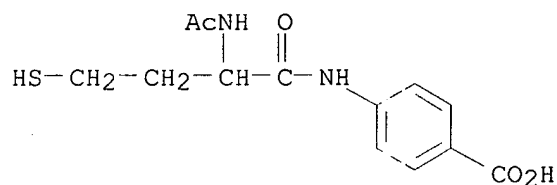
RN 69537-87-7 REGISTRY

CN Benzoic acid, 4-[[2-(acetalamino)-4-mercapto-1-oxobutyl]amino]- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H16 N2 O4 S

LC STN Files: CA, CAPLUS, TOXCENTER, TOXLIT



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 90:114924

L38 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2002 ACS

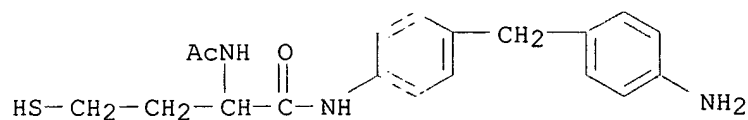
RN 69537-86-6 REGISTRY

CN Butanamide, 2-(acetalamino)-N-[4-[(4-aminophenyl)methyl]phenyl]-4-mercapto- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C19 H23 N3 O2 S

LC STN Files: CA, CAPLUS, TOXCENTER, TOXLIT



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 90:114924

L11 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:416988 CAPLUS  
DOCUMENT NUMBER: 139:141995  
TITLE: Oligoanilines: From crystals to FET  
AUTHOR(S): Quillard, S.; Corraze, B.; Poncet, M.; Mevellec, J.-Y.; Buisson, J.-P.; Evain, M.; Wang, W.; MacDiarmid, A. G.  
CORPORATE SOURCE: L.P.C., Institut des Materiaux de Nantes, Nantes, 44072/03, Fr.  
SOURCE: Synthetic Metals (2003), 137(1-3), 921-922  
CODEN: SYMEDZ; ISSN: 0379-6779  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 9

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Recently, the FET technique led to doped materials without structural defects. Wishing to apply this to **oligoanilines** (dimer and tetramer), the authors detd. the crystal **structures** and investigated the polarizability tensors via polarized Raman scattering. X-ray diffraction and polarized IR revealed that evapd. thin films are layered textured, in relation to cryst. parameters. Thin film processing combined with the phys. properties of these oligomers is then a convenient way to realize electronic devices, such as OFET and sensor systems.

L11 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:834191 CAPLUS  
DOCUMENT NUMBER: 138:90210  
TITLE: Intramolecular electron-transfer of C60-oligoaniline leucoemeraldine conjugates upon photoactivation  
AUTHOR(S): Canteenwala, Taizoon; Anantharaj, Vijayaraj; Patil, Sambhaji V.; Halder, Manas; Chiang, Long Y.  
CORPORATE SOURCE: Center for Condensed Matter Sciences, National Taiwan University, Taipei, Taiwan  
SOURCE: Journal of Macromolecular Science, Pure and Applied Chemistry (2002), A39(10), 1069-1083  
CODEN: JSPCE6; ISSN: 1060-1325  
PUBLISHER: Marcel Dekker, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 22

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Conductive starburst C60-derived macromols. were synthesized using C60(NO2)6 as a precursor intermediate for linking .pi.-conjugate oligomers, such as tetraaniline and hexadecaaniline, directly onto the fullerene cage. Subsequent phenylhydrazine redn. of the resulting hexa(tetraanilino)[60]fullerene and hexa(hexadecaanilino)[60]fullerene emeraldines produced the corresponding leucoemeraldine donors. Photoexcitation of these hexa(oligoanilino)[60]fullerene leucoemeraldines under N2 induced intramol. electron-transfer from benzenoid moieties of **oligoaniline** arms to the C60 cage, that regenerated the emeraldine **structure** in **oligoaniline** arms. Proceeding on the no. of electrons transferred was followed and estd. by in situ chem. trapping method on the reaction of electrophiles with fullerenic anions generated. That substantiated the capability of the fullerene cage to accept multiple electrons during the irradiation process.

L11 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:711384 CAPLUS  
DOCUMENT NUMBER: 137:232459  
TITLE: Preparation of multioligoanilinated fullerenes as photodynamic therapeutic agents to inhibit tumor

growth  
 INVENTOR(S): Chiang, Long Y.  
 PATENT ASSIGNEE(S): Taiwan  
 SOURCE: U.S., 8 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6452037	B1	20020917	US 2001-840323	20010423
EP 1253139	A2	20021030	EP 2002-9029	20020423
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003012624	A2	20030115	JP 2002-120491	20020423
PRIORITY APPLN. INFO.:			US 2001-840323	A 20010423
OTHER SOURCE(S):	MARPAT 137:232459			
REFERENCE COUNT:	31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT			

AB Multioligoanilinated fullerenes (MOAFs) of the **formula** SpF1[C[CO[GF2(Tq)]b(AaK)c]n]m [I; wherein p and q = independently 0-20; a = 1-8; b = 0-1; c = 1-20; provided that when b = 0, then c = 1; n = 1-2; m = 1-20; F1 and F2 = independently a C60-66 or C70 fullerene; S and T = independently OH, NH2, NHR, or SH; R = alkyl; A = independently N-(un)substituted **oligoaniline** of 2-12 aniline units; K = independently H, (NX-C6H4)1-3NH2, (NX-C6H4)1-3NHCS2H, (NX-C6H4)1-3N:CHArSH, or (NX-C6H4)1-3NHCOArSH; X = H, Z, CH2CO2H, CH2CO2Z, CH2COSZ, CH2CONH2, CH2CONHZ; Ar = aryl; Z = ED; E = R, RAr, ArR, or Ar; D = OH, SH, NH2, NHOH, SO3H, OSO3H, CO2H, CONH2, CHNH2CO2H, PO3H2, OPO3H2, glycoside, CH2OH, etc; G = independently OB, RO, NHBRNH, OBRNH, NHBRO, OBRS, or NHBRS; B = independently alkyl, aryl, (poly)ether, (poly)ester, amide, etc.] were prepd. and tested for use as anti-tumor agents. For example, fullerene deca(hexadecaaniline) adduct in DMF was treated sequentially with either DBU and 1,4-butane sultone or with NaH and 1,4-butane sultone to give the sulfobutylated deca(hexadecaaanilino) adduct of fullerene (F10A16S). The latter exhibited maximal photodynamic cytotoxicity efficacy of > 90% at a concn. of 5.0-10.0 .mu.M and an irradi. time of 60 min against fibrosarcoma CCRC 60037 and sarcoma 180 cells. In the absence of light irradi., no cytotoxicity was obsd. even at the highest F10A16S concn., i.e. 10 .mu.M. In a photodynamic therapy study, the fibrosarcoma tumor wt. in male ICR mice was reduced nearly 99% after i.p. injection of F10A16S at a concn. of 10 mg/kg followed by laser irradi. at 633 nm. Also disclosed are pharmaceutical compns. contg. a pharmaceutically effective amt. of I.

L11 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2002:496896 CAPLUS  
 DOCUMENT NUMBER: 137:286754  
 TITLE: A comparative study of intermolecular interactions in the crystal **structures** of phenyl/phenyl end-capped **oligoanilines**  
 AUTHOR(S): Gawlicka-Chruszcz, Anna; Stadnicka, Katarzyna  
 CORPORATE SOURCE: Faculty of Chemistry, Jagiellonian University, Krakow, 30-060, Pol.  
 SOURCE: Acta Crystallographica, Section C: Crystal Structure Communications (2002), C58(7), o416-o420  
 CODEN: ACSCEE; ISSN: 0108-2701  
 PUBLISHER: Blackwell Munksgaard  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS



TI A comparative study of intermolecular interactions in the crystal  
structures of phenyl/phenyl end-capped **oligoanilines**

L11 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:389619 CAPLUS  
DOCUMENT NUMBER: 137:125476  
TITLE: Synthesis and characterization of oligosalicylaldehyde-graft-oligoaniline and its beginning oligomers  
AUTHOR(S): Kaya, Ismet; Vilayetoglu, Adalet R.  
CORPORATE SOURCE: Faculty of Sciences and Arts, Department of Chemistry, Canakkale Onsekiz Mart University, Canakkale, 17100, Turk.  
SOURCE: Journal of Applied Polymer Science (2002), 85(1), 218-226  
CODEN: JAPNAB; ISSN: 0021-8995  
PUBLISHER: John Wiley & Sons, Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Conjugate bonding oligosalicylaldehyde-graft-**oligoaniline** (OSA-graft-OA) was synthesized from the polycondensation reaction of oligosalicylaldehyde (OSA) with **oligoaniline** (OA). There were various functional groups such as OH, NH and CH=N in the **structure** of the graft cooligomer. The phys. properties of the graft cooligomers such as melting temp. and soly. were studied. The no.-av. mol. wt., mass-av. mol. wt., and polydispersity index of OA, OSA, and fractions of the graft cooligomers [(OSA-graft-OA)-I] and [(OSA-graft-OA)-II] were found to be 740, 780 g mol<sup>-1</sup>, 1.05; 3700, 5990 g mol<sup>-1</sup>, 1.62; 990, 2770 g mol<sup>-1</sup>, 2.80; and 1300, 4100 g mol<sup>-1</sup>, 3.15, resp. The FTIR and UV-visible spectra of the graft cooligomer were compared with those of the initial oligomers. Based on the spectral analyses, the OSA-graft-OA synthesized from the polycondensation reaction of arom. amine with aldehyde has a long oligophenol macromol. bonded through an azomethine bridge to oligophenylamine side chains. The thermal stability of the graft cooligomer and oligomers were measured by thermogravimetric anal. (TG) under an air atm. The carbonaceous residues of the [(OSA-graft-OA)-I] (sol. in ethanol) and [(OSA-graft-OA)-II] (sol. in toluene) were 23% and 40%, resp., at 1000.degree..

L11 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:5942 CAPLUS  
DOCUMENT NUMBER: 136:199971  
TITLE: Facile Synthesis, Crystal Structures, and High-Spin Cationic States of All-para-Brominated Oligo(N-phenyl-m-aniline)s  
AUTHOR(S): Ito, Akihiro; Ino, Haruhiro; Tanaka, Kazuyoshi; Kanemoto, Katsuichi; Kato, Tatsuhisa  
CORPORATE SOURCE: Department of Molecular Engineering Graduate School of Engineering, Kyoto University, Sakyo-ku, Kyoto, 606-8501, Japan  
SOURCE: Journal of Organic Chemistry (2002), 67(2), 491-498  
CODEN: JOCEAH; ISSN: 0022-3263  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Syntheses of brominated **oligoanilines** I and II were achieved in a one-pot procedure from the parent nonbrominated oligomers and benzyltrimethylammonium tribromide [(BTMA)Br<sub>3</sub>]. An X-ray crystallog. anal. revealed that II has a U-shaped **structure**, suggesting that

the analogous polymer easily adopts helical **structures**. Furthermore, the redox properties were investigated by the UV-vis and EPR measurements. It was confirmed that the both I and II can be oxidized into the dications I2+ and II2+ with triplet spin-multiplicity.

L11 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:641898 CAPLUS  
TITLE: Synthesis of starburst hexadecaaniline derivative of C60 and its elastic submicroparticles  
AUTHOR(S): Chiang, Long Y.  
CORPORATE SOURCE: Center for Condensed Matter Sciences, National Taiwan University, Taipei, 10764, Taiwan  
SOURCE: Abstracts of Papers, 222nd ACS National Meeting, Chicago, IL, United States, August 26-30, 2001 (2001), POLY-028. American Chemical Society: Washington, D. C.  
CODEN: 69BUZP  
DOCUMENT TYPE: Conference; Meeting Abstract  
LANGUAGE: English

AB Efficient synthesis of starburst **oligoanilines** was demonstrated using hexamalonate and pentamalonate [60]fullerene adducts as precursor mols. where C60 serves as a mol. core. Electron-donating properties of **oligoanilines** were enhanced by phenylhydrazine redn. leading to the corresponding leucoemeraldine derivs. Intramol. electron-transfer from hexadecaaniline arms of these starburst mols. to the C60 core was found to be highly efficient upon irradiation. Under in situ chem. trapping of fullerene anions in the soln. of leucoemeraldine deca(hexadecaanilinated)fullerene malonate deriv., multiple electrons consecutively transferred from several **oligoaniline** arms to the fullerene cage were detected. The other method utilizes the starburst polyaniline **structure** derived from the fullerene cage bound on the elastic polysiloxane core submicroparticle. The synthetic approach becomes possible upon availability of facile starburst hexanilino, hexa(dianilino), hexa(tetraanilino), and hexa(hexadecaanilino) [60]fullerenes syntheses using hexanitro[60]fullerene (HNF) as a reactive precursor mol. Utilization of this reactivity towards electron-donor nucleophiles, a synthetic approach was developed for producing oligoanilinated fullerenes as intramol. donor-acceptor A-(D)6 analogous starburst macromols. with a well-defined arm no. and chain length. Connection of **oligoaniline** donor-fullerene acceptor A-(D)6 starburst macromols. onto polysiloxane core particle forms a dendritic core-shell conductive elastomers.

L11 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:475286 CAPLUS  
DOCUMENT NUMBER: 135:211547  
TITLE: Intermolecular Electron Transfer in Low-Molecular-Weight Polyaniline Models Associating on Protonation by Amphiphilic Acid in Organic Solvent  
AUTHOR(S): Lokshin, Natalya A.; Pyshkina, Olga A.; Golubev, Vladimir B.; Sergeyev, Vladimir G.; Zezin, Alexander B.; Kabanov, Victor A.; Levon, Kalle; Piankijsakul, Somkiat  
CORPORATE SOURCE: Polymer Department Division of Chemistry, Moscow State University, Moscow, 119899, Russia  
SOURCE: Macromolecules (2001), 34(16), 5480-5486  
CODEN: MAMOBX; ISSN: 0024-9297  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Protonation of N-(4-aminophenyl)-N-{4-[(4-aminophenyl)imino]-2,5-

cyclohexadien-1-ylidene}-1,4-benzenediamine and N-[4-(dimethylamino)phenyl]-N-(4-{[4-(dimethylamino)phenyl]imino}-2,5-cyclohexadien-1-ylidene)amine as trianiline models of polyaniline emeraldine base (PANI-EB) with dodecylbenzenesulfonic acid (DBSAH), a typical organo-sol. acidic dopant, in chloroform and 1-methyl-2-pyrrolidinone solns., and also interaction of the resulting products with distearyldimethylammonium chloride (DDAC) as a potential de-doping agent were studied at ambient temp. by UV-vis and ESR spectroscopic methods. It has been shown that protonation is followed by intermol. proton-electron transfer and results in the formation of mono-radical cations apparently paired with the counterions which tend to assoc. even in rather dil. chloroform solns. and form aggregates characterized by intermol. electron interchange. These aggregates, however, dissoc. on adding an excess of the protonating agent, revealing an ESR signal line with resolved hyperfine **structure** which corresponds to a mono-radical with unpaired electron interacting with two N nuclei. The proposed reaction mechanism probably can be applied to doping higher **oligoanilines** and PANI-EB. It is also shown that the protonated trimer complexes can be deprotonated ("de-doped") in chloroform soln. on adding DDAC. This is in contrast to PANI-EB doped with DBSAH, which could not be deprotonated with cationic amphiphiles.

L11 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:355902 CAPLUS  
 DOCUMENT NUMBER: 135:107846  
 TITLE: NMR and UV-Vis study on phenyl-capped oligoaniline salts  
 AUTHOR(S): Sun, Z. C.; Jing, X. B.; Wang, X. H.; Li, J.; Wang, F. S.  
 CORPORATE SOURCE: State Key Lab of Polymer Physics and Chemistry, CAS, Changchun Institute of Applied Chemistry, Changchun, 130022, Peop. Rep. China  
 SOURCE: Synthetic Metals (2001), 119(1-3), 313-314  
 CODEN: SYMEDZ; ISSN: 0379-6779  
 PUBLISHER: Elsevier Science S.A.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Phenyl-capped **oligoanilines** in the oxidized state and their salts (by camphor sulfonic acid, CSA) were comparatively studied by UV-Vis and NMR spectroscopy. The UV-Vis spectra revealed a similar electron transfer behavior and similar **structure** in the tetra-aniline to those in polyaniline. Upon formation of the salt, <sup>1</sup>H NMR CH peaks of the oligomers showed large shifts to lower fields. The longer the mol. of a oligomer is, the more the shift, indicating that the charge brought into the N atoms by the proton was redistributed over the whole mol. The CH and quaternary carbon peak-shifts support the electron cloud motion route H.fwdarw.C.fwdarw.C.fwdarw.N.fwdarw.H. This is in agreement with the four ring BQ derivs. model.

L11 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:27821 CAPLUS  
 DOCUMENT NUMBER: 134:237930  
 TITLE: Regiospecific Copolyanilines from Substituted Oligoanilines: Electrochemical Comparisons with Random Copolyanilines  
 AUTHOR(S): Pullen, Anthony E.; Swager, Timothy M.  
 CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA  
 SOURCE: Macromolecules (2001), 34(4), 812-816  
 CODEN: MAMOBX; ISSN: 0024-9297  
 PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Regiospecific substituted polyanilines were prep'd. via electropolymerization of methoxy-substituted dimeric and trimeric **oligoanilines**. The **oligoaniline** monomers were synthesized utilizing Pd-catalyzed aryl amination cross-coupling chem. The single-crystal x-ray **structure** of one of the oligomers is presented. The **oligoaniline** monomers were electropolymerized in 1 M H<sub>2</sub>SO<sub>4</sub>, and the electrochem. behavior and potential-dependent in situ cond. of the regiospecific polyaniline films was compared to that of random copolymers obtained from solns. of aniline and o-anisidine of the same molar ratio. The regiospecific polyanilines exhibited higher cond., which may be attributed to a more cryst. and regular **structure**. Differences in the oxidn. potential of the polymers are obs'd. depending on the degree of methoxy substitution.

L11 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:799976 CAPLUS  
DOCUMENT NUMBER: 134:57251  
TITLE: The role of adsorption of aniline trimers on the corrosion inhibition process: a ZINDO/1 study  
AUTHOR(S): Sein, L. T., Jr.; Wei, Yen; Jansen, S. A.  
CORPORATE SOURCE: Department of Chemistry, Temple University, Philadelphia, PA, 19122, USA  
SOURCE: Computational and Theoretical Polymer Science (2000), Volume Date 2001, 11(2), 83-88  
CODEN: CTPSFJ; ISSN: 1089-3156  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The semi-empirical ZINDO/1 method was used to calc. the electronic **structure** and thermodyn. properties of aniline trimers, leucoemeraldine, emeraldine dihydrochloride, emeraldine, and pernigraniline adsorbed onto cluster models of the Al(100) and Fe(100) surfaces. The effects of progressive oxidn. and protonation of the trimers on corrosion inhibition are interpreted in terms of these calcns. The interaction of aniline trimers with and Fe surface is far greater than with an Al surface. The ability of emeraldine dihydrochloride to lower the HOMO of the Fe cluster is a significant factor in the ability to inhibit corrosion. The **oligoanilines** and polyaniline conducting polymers are of interest in development of semiconductor electrodes and anticorrosion coatings.

L11 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:589189 CAPLUS  
DOCUMENT NUMBER: 133:341887  
TITLE: Structural and spectroscopic characterizations of oligoaniline thin films  
AUTHOR(S): Corraze, B.; Quillard, S.; Morvan, H.; Boyer, M. I.  
CORPORATE SOURCE: Institut des Matériaux de Nantes, Nantes, 44322, Fr.  
SOURCE: Thin Solid Films (2000), 372(1,2), 54-59  
CODEN: THSFAP; ISSN: 0040-6090  
PUBLISHER: Elsevier Science S.A.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ST **structure** spectroscopic characterization **oligoaniline** thin film

L11 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:271015 CAPLUS

DOCUMENT NUMBER: 133:31155

TITLE: Systematic study of the influence of several parameters on physicochemical properties of oligoanilines and their derivatives

AUTHOR(S): Vaschetto, Mariana E.; Retamal, Bernardo A.

CORPORATE SOURCE: Departamento de Quimica y Fisica, Universidad Nacional de Rio Cuarto, Rio Cuarto, 5800, Argent.

SOURCE: International Journal of Polymeric Materials (1999), 44(3-4), 317-340

CODEN: IJPMCS; ISSN: 0091-4037

PUBLISHER: Gordon & Breach Science Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB In this work we study the influence of asymmetry, chain length, oxidn. state, counterions and substituents groups over the physicochem. properties of **oligoanilines**. We present some semiempirical quantum chem. calcns. of optimized **structures**, charge distributions, energy gaps and enthalpies of formation ( $\Delta H_f$ ) for aniline oligomers in different oxidn. states using the AM1 method. Also, substituted **structures** are calcd. The substituents studied are methoxy, Me and cyano groups located at positions 2 or 3 in the benzenoid ring. Methoxy substituted tetraanilines show hydrogen bridge formation; therefore, these are the most stable **structures**. The cyano group ( $\sigma$ - $\pi$  acceptor) induces a lowering of charge on the terminal amine group in all oxidn. states. Our calcns. show that a linear relationship exists between charge on terminal amine group and the IP, having different slope values depending on the substituents position. Theor. energy gaps and exptl. ones (from refs.) display a quite linear relationship. Tetraanilines substituted with cyano groups show the lowest energy gap and is the most interesting material that we have studied. Moreover, charged **structures** have been analyzed. Calcns. on radical cation and dication **structures** are introduced. The influence of the counterions on the electronic properties of charged **structures** is presented.

L11 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:87670 CAPLUS

DOCUMENT NUMBER: 132:194791

TITLE: A self-doped oligoaniline with two stable redox couples in a wide pH range

AUTHOR(S): Yamamoto, Kimihisa; Taneichi, Daiki

CORPORATE SOURCE: Dep. Chemistry, Faculty Science Technology, Keio Univ., Yokohama, 223, Japan

SOURCE: Macromolecular Chemistry and Physics (2000), 201(1), 6-11

CODEN: MCHPES; ISSN: 1022-1352

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB 2,3-Dicarboxyaniline in its anionic state is oxidatively polymd. in aq. soln. by Na<sub>2</sub>S<sub>2</sub>O<sub>8</sub> as an oxidant to yield oligo(2,3-dicarboxyaniline) as a novel **oligoaniline**. XPS anal. reveals that the **structure** of the resulting oligomers is 61% quinoid and 39% benzenoid with ca. 21% self-doping degree. The resulting **oligoaniline** shows two stable redox couples over a wide pH range on the electrode. Both redox processes involve 1 electron transfer with 1 proton transfer in each 2 monomer units, a redox chem. that is quite

distinct from conventional polyaniline. The redox activity of the resulting polymer in pseudo-neutral conditions is caused by the carboxy group with high d. which acts as a proton source for the protonation on the nitrogen atom of the polyaniline chain.

L11 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:6816 CAPLUS  
DOCUMENT NUMBER: 132:108685  
TITLE: Synthesis of monodisperse phenyl-capped oligoaniline pentamer and hexamer in the leucoemeraldine oxidation state and EB state and its UV studies  
AUTHOR(S): Gao, Jun-Bo; Li, Ke; Sun, Hui; Yu, You-Hai; Wang, Ce; Wu, Zhong-Wen; Zhang, Wan-Jin  
CORPORATE SOURCE: Department of Chemistry, Jilin University, Changchun, 130023, Peop. Rep. China  
SOURCE: Gaodeng Xuexiao Huaxue Xuebao (1999), 20(12), 1960-1964  
CODEN: KTHPDM; ISSN: 0251-0790  
PUBLISHER: Gaodeng Jiaoyu Chubanshe  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese  
IT 125597-21-9P, Benzenamine, hexamer 165260-61-7P, Benzenamine, pentamer  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(emeraldine **structure**; synthesis of monodisperse phenyl-capped **oligoaniline** pentamer and hexamer)

L11 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:459797 CAPLUS  
DOCUMENT NUMBER: 131:214864  
TITLE: Optical properties of C60-derived star-burst oligoanilines  
AUTHOR(S): Anantharaj, Vijayaraj; Ho, Edna; Wang, Lee Y.; Chiang, Long Y.  
CORPORATE SOURCE: Center for Condensed Matter Sciences, Taiwan University, Taipei, Taiwan  
SOURCE: Synthetic Metals (1999), 101(1-3), 791-792  
CODEN: SYMEDZ; ISSN: 0379-6779  
PUBLISHER: Elsevier Science S.A.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT  
IT 25233-30-1D, Polyaniline, fullerene deriv.  
RL: PRP (Properties)  
(of emeraldine **structure**; UV-visible and fluorescence spectra of fullerene-C60 star-burst **oligoaniline** derivs.)

L11 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:540285 CAPLUS  
DOCUMENT NUMBER: 127:148792  
TITLE: Substituents Effect on the Electronic Properties of Aniline and Oligoanilines  
AUTHOR(S): Vaschetto, Mariana E.; Retamal, Bernardo A.  
CORPORATE SOURCE: Departamento de Quimica y Fisica Facultad de Ciencias Exactas Fisicoquimicas y Naturales, Universidad Nacional de Rio Cuarto, Rio Cuarto, 5800, Argent.  
SOURCE: Journal of Physical Chemistry A (1997), 101(37), 6945-6950  
CODEN: JPCAFH; ISSN: 1089-5639  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Aniline oligomers have been intensively studied in the past years. In

particular, aniline oligomers substituted with electron-donor groups have been synthesized and its electronic properties calcd. However, when an electron-acceptor group is attached to the benzenoid ring of the **oligoaniline**, strong effects over its electronic properties are expected to happen. In this work some semiempirical quantum chem. calcns. of geometric **structures**, and energy level distribution of aniline and substituted anilines and its corresponding oligomer are presented. Geometry calcns. of aniline and **oligoanilines** have been performed by using the PM3 and AM1 methods. Energy calcns. and UV-vis spectra have been done by using the ZINDO/S-CI method. The studied substituents are methoxy, Me, fluorine, nitro, and cyano groups, located at positions 2 or 3, in the benzenoid ring. This series of substituent groups involves a large range of .sigma.-.pi. electron-donor-acceptor capability. The methoxy and the nitro substituted tetranilines show an interaction between the oxygen of the substituent and the nitrogen of the oligomer through an hydrogen atom. These hydrogen bonds modify largely the **structure** of the oligomers. Particularly nitro groups show the strongest electrostatic attraction between hydrogen and oxygen. The cyano and the nitro groups (.sigma.-.pi. acceptor) induce an increasing of the ionization potential. Theor. anal. of the orbital energies of mols. substituted with electron-acceptor groups shows a lowering of the LUMO energy values larger than those in the HOMOs cases. A decreasing of the energy of the first optical transition when the electron acceptor capability of the substituent increases is shown. Tetranilines substituted with nitro groups display a band around 380 nm in the calcd. UV-vis spectrum. Thus, **oligoanilines** substituted with electron-acceptor groups (esp. nitro groups) show the lowest energy gap and they are the most encouraging material for semiconducting applications that we have studied.

ST electronic **structure** aniline **oligoaniline** MO

IT Molecular **structure**

(optimized; semiempirical MO study of substituents effect on the electronic properties of aniline and **oligoanilines**)

IT AM1 MO (molecular orbital)

Electronic **structure**

Electronic transition

FMO (molecular orbital)

PM3 (molecular orbital)

Substituent effects

(semiempirical MO study of substituents effect on the electronic properties of aniline and **oligoanilines**)

L11 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:233501 CAPLUS

DOCUMENT NUMBER: 126:264713

TITLE: Electrochromic properties of vacuum-evaporated polyaniline films

AUTHOR(S): Ivanov, V. F.; Nekrasov, A. A.; Gribkova, O. L.; Vannikov, A. V.

CORPORATE SOURCE: Frumkin Institute of Electrochemistry, Russian Academy of Sciences, Leninskii Prospect 31, Moscow, 117071, Russia

SOURCE: Synthetic Metals (1996), 83(3), 249-251

CODEN: SYMEDZ; ISSN: 0379-6779

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The emeraldine base was deposited on SnO<sub>2</sub> glass substrates in vacuum by thermal evapn. in the temp. range 275-325 .degree.C. The as-deposited films differ dramatically from the native polyaniline and are formed by the redn. of **oligoanilines** with mol. wt. about 1500. The cycling acid-base treatment of vacuum thermally deposited films gives rise to formation of polyaniline-like material. The property restoration of

sublimed films is apparently detd. by the restoration of 3D assoc. in the film body. Mol. **structure** defects in vacuum-deposited films are responsible for the lower rates of coloration/decoloration, the lower contribution to imine formation and irreversible injection of anodic charge under the first oxidn./redn. cycle. The lower imine concn. in sublimed polyaniline films results in more coloration/decoloration cycles.

L11 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1995:355115 CAPLUS  
DOCUMENT NUMBER: 122:162329  
TITLE: Conductivity, thermoelectric power and field-effect mobility in self-assembled films of polyanilines and oligoanilines  
AUTHOR(S): Paloheimo, J.; Laakso, K.; Isotalo, H.; Stubb, H.  
CORPORATE SOURCE: VTT Electronics, Electronic Materials and Components, Technical Research Centre of Finland, Otakaari 7B, Espoo, FIN-02150, Finland  
SOURCE: Synthetic Metals (1995), 68(3), 249-57  
CODEN: SYMEDZ; ISSN: 0379-6779  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Thin conducting films of polyanilines and **oligoanilines** were deposited by using a layer-by-layer self-assembly process. Cond., thermoelec. power, and field-effect measurements were performed on the films. The highest conductivities were around 1 S.cntdot.cm<sup>-1</sup> at room temp. The cond. was studied as a function of temp. and obeyed the T<sup>-1/2</sup> law of variable-range hopping. The thermoelec. power of the films was initially n-type in air at room temp., but changed its sign to p-type under vacuum or with time. A linear temp. dependence was obsd. and related to the contribution from metallic polymer-chain segments. The field effect, measured using thin-film transistor **structures**, was always n-type and the field-effect mobilities were about 10<sup>-6</sup>-10<sup>-3</sup> cm<sup>2</sup> V<sup>-1</sup> s<sup>-1</sup>. The Coulomb-gap model gives a good description of the system still lacking an expression for the field effect.

L11 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:31502 CAPLUS  
DOCUMENT NUMBER: 110:31502  
TITLE: Fluoran derivatives having **oligoaniline structure** and color-forming recording materials containing them  
INVENTOR(S): Yoshinaka, Shinji; Onishi, Yutaka; Obitsu, Takeo  
PATENT ASSIGNEE(S): Shin Nisso Kako Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63159384	A2	19880702	JP 1986-305430	19861223
PRIORITY APPLN. INFO.:			JP 1986-305430	19861223
OTHER SOURCE(S): MARPAT 110:31502				
TI Fluoran derivatives having <b>oligoaniline structure</b> and color-forming recording materials containing them				

L11 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:407211 CAPLUS  
DOCUMENT NUMBER: 109:7211  
TITLE: **Oligoaniline structure**



AUTHOR(S): Gadzhiev, G. G.; Kasumov, F. Kh.; Seidov, M. A.;  
Ragimov, A. V.  
CORPORATE SOURCE: Azerb. Med. Inst., Baku, USSR  
SOURCE: Doklady - Akademiya Nauk Azerbaidzhanskoi SSR (1987),  
43(8), 50-5  
CODEN: DAZRA7; ISSN: 0002-3078  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
TI **Oligoaniline structure**

=> d his full

(FILE 'HOME' ENTERED AT 16:17:52 ON 17 SEP 2003)

FILE 'REGISTRY' ENTERED AT 16:18:00 ON 17 SEP 2003

L1 0 SEA ABB=ON PLU=ON ANILINE/RN  
E ANILINE/CN  
E ANILINEAMINE .  
E ANILINE  
E ANILINE/CN  
L2 1 SEA ABB=ON PLU=ON ANILINE/CN  
D L2

FILE 'CAPLUS' ENTERED AT 17:04:20 ON 17 SEP 2003

L3 STRUCTURE UPLOADED  
S L3

FILE 'REGISTRY' ENTERED AT 17:04:45 ON 17 SEP 2003

L4 17 SEA SSS SAM L3

FILE 'CAPLUS' ENTERED AT 17:04:45 ON 17 SEP 2003

L5 25 SEA ABB=ON PLU=ON L4  
D L5  
D L5 2-25  
L6 95868 SEA ABB=ON PLU=ON ANILINE  
L7 11213 SEA ABB=ON PLU=ON ANILINE (P) (HYDROXYL OR HYDROXY OR AMINE  
OR AMIDE OR CARBOXYL)  
L8 13 SEA ABB=ON PLU=ON OLIGOANILINE (P) (HYDROXYL OR HYDROXY OR  
AMINE OR AMIDE OR CARBOXYL)  
D L8 IBIB KWIC 1-

FILE 'REGISTRY' ENTERED AT 17:10:23 ON 17 SEP 2003

E OLIGOANILINE/CN  
L9 0 SEA ABB=ON PLU=ON OLIGOANILINE

FILE 'CAPLUS' ENTERED AT 17:11:00 ON 17 SEP 2003

L10 110 SEA ABB=ON PLU=ON OLIGOANILINE  
L11 21 SEA ABB=ON PLU=ON L10 (P) (FORMULA OR STRUCTURE)  
D L11 IBIB KWIC 1-

L6 ANSWER 1 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:711384 CAPLUS  
 DN 137:232459  
 TI Preparation of multioligoanilinated fullerenes as photodynamic therapeutic agents to inhibit tumor growth  
 IN Chiang, Long Y.  
 PA Taiwan  
 SO U.S., 8 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6452037	B1	20020917	US 2001-840323	20010423
	EP 1253139	A2	20021030	EP 2002-9029	20020423
	R: AT, BE, CH, DE, DK, ES; FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003012624	A2	20030115	JP 2002-120491	20020423
PRAI	US 2001-840323	A	20010423		
OS	MARPAT 137:232459				
RE.CNT	31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L6 ANSWER 2 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:626510 CAPLUS  
 DN 137:286691  
 TI Study on crystalline behavior of doped parent aniline tetramer by HREM  
 AU Chen, Liang; Yu, Youhai; Mao, Huaping; Wang, Ce; Zhou, Yunchun; Zhang, Wanjin  
 CS Department of Chemistry, Jilin University, Changchun, 130023, Peop. Rep. China  
 SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2002), 43(2), 1266  
 CODEN: ACPPAY; ISSN: 0032-3934  
 PB American Chemical Society, Division of Polymer Chemistry  
 DT Journal; (computer optical disk)  
 LA English  
 RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:485214 CAPLUS  
 DN 137:170101  
 TI Spectroscopic and Spectroelectrochemical Properties of a Poly(alkylthiophene)-Oligoaniline Hybrid Polymer  
 AU Dufour, B.; Rannou, P.; Travers, J. P.; Pron, A.; Zagorska, M.; Korc, G.; Kulszewicz-Bajer, I.; Quillard, S.; Lefrant, S.  
 CS Laboratoire de Physique des Metaux Synthetiques, CEA-Grenoble, UMR 5819-SPrAM (CEA-CNRS-Universite J. Fourier-Grenoble I), DRFMC, Grenoble, 38054, Fr.  
 SO Macromolecules (2002), 35(16), 6112-6120  
 CODEN: MAMOBX; ISSN: 0024-9297  
 PB American Chemical Society  
 DT Journal  
 LA English  
 RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 2002:388064 CAPLUS  
 DN 137:94304  
 TI Nature of Protons, Phase Transitions, and Dynamic Disorder in Poly- and

Oligoaniline Bases and Salts: An Inelastic Neutron Scattering Study  
 AU El Khalki, A.; Colomban, Ph.; Hennion, B.  
 CS Nanophases and Heterogeneous Solids Group, LADIR UMR 7075 CNRS, University  
 Pierre et Marie Curie, Thiais, 94320, Fr.  
 SO Macromolecules (2002), 35(13), 5203-5211  
 CODEN: MAMOBX; ISSN: 0024-9297  
 PB American Chemical Society  
 DT Journal  
 LA English

RE.CNT 41      THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 42    CAPLUS    COPYRIGHT 2003 ACS  
 AN 2001:259558    CAPLUS  
 DN 135:116136  
 TI Non-aqueous capillary electrophoresis using non-dissociating solvents.  
 Application to the separation of highly hydrophobic oligomers  
 AU Cottet, H.; Struijk, M. P.; Van Dongen, J. L. J.; Claessens, H. A.;  
 Cramers, C. A.  
 CS Department of Chemical Engineering, Laboratory of Instrumental Analysis,  
 Eindhoven University of Technology, Eindhoven, 5600 MB, Neth.  
 SO Journal of Chromatography, A (2001), 915(1-2), 241-251  
 CODEN: JCRAEY; ISSN: 0021-9673  
 PB Elsevier Science B.V.  
 DT Journal  
 LA English

RE.CNT 30      THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 42    CAPLUS    COPYRIGHT 2003 ACS  
 AN 2000:860656    CAPLUS  
 DN 134:148190  
 TI Homo- and copolymerisation of ring-substituted alkyl anilines. Theoretical  
 estimation of monomer reactivity.  
 AU Gospodinova, N. P.; Tadjer, A. V.; Madjarova, G. K.; Mokreva, P. T.;  
 Terlemezyan, L. K.  
 CS Institute of Polymers, Bulgarian Academy of Sciences, Sofia, 1113, Bulg.  
 SO Bulgarian Chemical Communications (2000), 32(1), 72-79  
 CODEN: BCHCE4; ISSN: 0324-1130  
 PB Bulgarian Academy of Sciences and the Bulgarian Chemical Society  
 DT Journal  
 LA English

RE.CNT 11      THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 42    CAPLUS    COPYRIGHT 2003 ACS  
 AN 2000:830574    CAPLUS  
 DN 133:351572  
 TI Manufacture of functional coatings using phenyl-ended aniline tetramer as  
 anticorrosive additive  
 IN Zhang, Wanjin; Gao, Junbo; Li, Ke; Wang, Ce; Yu, Youhai; Wu, Zhongwen  
 PA Jielin University, Peop. Rep. China  
 SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp.  
 CODEN: CNXXEV  
 DT Patent  
 LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CN 1250792	A	20000419	CN 1999-120966	19991018
PRAI	CN 1999-120966		19991018		

L6 ANSWER 8 OF 42    CAPLUS    COPYRIGHT 2003 ACS  
 AN 2000:633847    CAPLUS

DN 133:341863  
TI Dichroism induced by photoisomerization of aniline tetramers in polymeric films  
AU Mendonca, Cleoer R.; dos Santos, David S., Jr.; De Boni, Leonardo; Balogh, Deborah T.; Oliveira, Osvaldo N., Jr.; Zilio, Sergio C.  
CS Instituto de Fisica de Sao Carlos Universidade de Sao Paulo, Sao Carlos, 13560-970, Brazil  
SO Advanced Materials (Weinheim, Germany) (2000), 12(15), 1126-1129  
CODEN: ADVMEW; ISSN: 0935-9648  
PB Wiley-VCH Verlag GmbH  
DT Journal  
LA English  
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 2000:594189 CAPLUS  
DN 133:310239  
TI Stabilization and anti-corrosion property of phenyl-capped and aniline tetramer as additives to common coating  
AU Wang, Ce; Gao, Junbo; Chen, Chunhai; Qiu, He; Yu, Youhai; Chen, Liang; Wu, Zhongwen; Zhang, Wanjin  
CS Chemistry Department, Jilin University, Changchun, 130023, Peop. Rep. China  
SO ~~\*Polymer Preprints~~ (American Chemical Society, Division of Polymer Chemistry) (2000), 41(2), 1746-1747  
CODEN: ACPPAY; ISSN: 0032-3934  
PB American Chemical Society, Division of Polymer Chemistry  
DT Journal  
LA English  
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

QD 281.86  
A53

L6 ANSWER 10 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 2000:345019 CAPLUS  
DN 133:164582  
TI HREELS study of ultra-thin polyaniline films grown on Cu(110) by vapor deposition of aniline tetramers  
AU Lee, K. K.; Vohs, J. M.; DiNardo, N. J.  
CS Department of Chemical Engineering, University of Pennsylvania, Philadelphia, PA, 19104, USA  
SO Synthetic Metals (2000), 113(3), 231-236  
CODEN: SYMEDZ; ISSN: 0379-6779  
PB Elsevier Science S.A.  
DT Journal  
LA English  
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 2000:271015 CAPLUS  
DN 133:31155  
TI Systematic study of the influence of several parameters on physicochemical properties of oligoanilines and their derivatives.  
AU Vaschetto, Mariana E.; Retamal, Bernardo A.  
CS Departamento de Quimica y Fisica, Universidad Nacional de Rio Cuarto, Rio Cuarto, 5800, Argent.  
SO International Journal of Polymeric Materials (1999), 44(3-4), 317-340  
CODEN: IJPMCS; ISSN: 0091-4037  
PB Gordon & Breach Science Publishers  
DT Journal  
LA English  
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 2000:181994 CAPLUS  
DN 132:294227  
TI Solid-state structure of optically active polyaniline  
AU Espe, Matthew P.; Gates, Bryan M.; Schmeida, P. Michael  
CS Department of Chemistry, The University of Akron, Akron, OH, 44325, USA  
SO Polymeric Materials Science and Engineering (2000), 82, 138  
CODEN: PMSEDG; ISSN: 0743-0515  
PB American Chemical Society  
DT Journal  
LA English  
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- TP156.C57 A5 -  
TO MAIN

L6 ANSWER 13 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 2000:153448 CAPLUS  
DN 132:322370  
TI Chain length effect on intrachain electronic excitation and interchain coupling in poly- and oligo-anilines  
AU Folch, S.; Regis, A.; Gruger, A.; Colomban, P.  
CS UPR 1580 CNRS, Laboratoire de Dynamique, Interactions et Reactivite, Thiais, 94320, Fr.  
SO Synthetic Metals (2000), 110(3), 219-227  
CODEN: SYMEDZ; ISSN: 0379-6779  
PB Elsevier Science S.A.  
DT Journal  
LA English  
RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1999:573852 CAPLUS  
DN 131:299785  
TI A novel synthetic method to phenyl-capped penta- and hexaaniline  
AU Gao, Jun Bo; Zhang, Wan Jin; Li, Ke; Wang, Ce; Wu, Zhong Wen; Ji, Yi Ping  
CS Chemistry Dep., Jilin Univ., Changchun, 130023, Peop. Rep. China  
SO Macromolecular Rapid Communications (1999), 20(9), 463-466  
CODEN: MRCOE3; ISSN: 1022-1336  
PB Wiley-VCH Verlag GmbH  
DT Journal  
LA English  
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1999:559078 CAPLUS  
DN 132:181144  
TI Chemical oxidation and electrochemical oxidation on phenyl-capped oligoanilines  
AU Gao, Junbo; Jin, Jian; Zhang, Wanjin; Li, Ke; Yu, Youhai; Wang, Ce; Wu, Zhongwen; Wei, Zhanhai; Ji, Yiping  
CS Chemistry Department, Jinlin University, Changchun, 130023, Peop. Rep. China  
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1999), 40(2), 815  
CODEN: ACPPAY; ISSN: 0032-3934  
PB American Chemical Society, Division of Polymer Chemistry  
DT Journal  
LA English  
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 42 CAPLUS COPYRIGHT 2003 ACS

AN 1999:559034 CAPLUS  
DN 132:167293  
TI Optical storage in aniline oligomers  
AU Dos Santos, D. S., Jr.; Mendonca, C. R.; Balogh, D. T.; De Boni, L.;  
Zilio, S. C.; Oliveira, O. N., Jr.  
CS Instituto de Fisica de Sao Carlos, Universidade de Sao Paulo, Sao Carlos,  
13560-970, Brazil  
SO Polymer Preprints (American Chemical Society, Division of Polymer  
Chemistry) (1999), 40(2), 730-731  
CODEN: ACPPAY; ISSN: 0032-3934  
PB American Chemical Society, Division of Polymer Chemistry  
DT Journal  
LA English  
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1999:552136 CAPLUS  
DN 131:299791  
TI Electrochemical polymerization of aniline investigated using on-line  
electrochemistry/electrospray mass spectrometry  
AU Deng, Haiteng; Van Berkel, Gary J.  
CS Chemical and Analytical Sciences Division, Oak Ridge National Laboratory,  
Oak Ridge, TN, 37831-6365, USA  
SO Analytical Chemistry (1999), 71(19), 4284-4293  
CODEN: ANCHAM; ISSN: 0003-2700  
PB American Chemical Society  
DT Journal  
LA English  
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 18 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1999:459787 CAPLUS  
DN 131:200474  
TI EPR of mesoscale polyanilines  
AU Brenneman, K. R.; Feng, J.; Zhou, Y.; MacDiarmid, A. G.; Kahol, P. K.;  
Epstein, A. J.  
CS Chemical Physics Program, The Ohio State University, Columbus, OH,  
43210-1106, USA  
SO Synthetic Metals (1999), 101(1-3), 785-786  
CODEN: SYMEDZ; ISSN: 0379-6779  
PB Elsevier Science S.A.  
DT Journal  
LA English  
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 19 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1999:459489 CAPLUS  
DN 131:200630  
TI Interaction of oligoaniline molecules with metallic surfaces. A HREELS  
study  
AU Rei Vilar, M.; Folch, S.; Chenouffi, M.; Gruger, A.; Colomban, Ph.  
CS LADIR- UPR1580 CNRS 2, Thiais, 94320, Fr.  
SO Synthetic Metals (1999), 101(1-3), 650-651  
CODEN: SYMEDZ; ISSN: 0379-6779  
PB Elsevier Science S.A.  
DT Journal  
LA English  
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 20 OF 42 CAPLUS COPYRIGHT 2003 ACS

AN 1999:320475 CAPLUS  
DN 131:88434  
TI Oligomers and isomers: new horizons in poly-anilines  
AU MacDiarmid, Alan G.; Zhou, Yao; Feng, Jing  
CS Department of Chemistry, University of Pennsylvania, PA, 19104, USA  
SO Synthetic Metals (1999), 100(1), 131-140  
CODEN: SYMEDZ; ISSN: 0379-6779  
PB Elsevier Science S.A.  
DT Journal  
LA English  
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 21 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1999:211169 CAPLUS  
DN 130:352838  
TI Isomers and isomerization processes in polyanilines  
AU MacDiarmid, A. G.; Zhou, Y.; Feng, J.; Furst, G. T.; Shedlow, A. M.  
CS Chemistry Department, University of Pennsylvania, Philadelphia, PA, USA  
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1999), 40(1), 246-247  
CODEN: ACPPAY; ISSN: 0032-3934  
PB American Chemical Society, Division of Polymer Chemistry  
DT Journal  
LA English  
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 22 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1998:468349 CAPLUS  
DN 129:144377  
TI Fabrication of aniline oligomer coated carbon electrode and its current responses for catecholamines  
AU Maeda, Yuji; Yoshida, Yasuhiko; Hasebe, Yasushi; Uchiyama, Shunichi  
CS Faculty of Engineering, Toyo University, Saitama, 350, Japan  
SO Chemical Sensors (1997), 13(Suppl. B, Proceedings of the 25th Chemical Sensor Symposium, 1997), 1-4  
CODEN: KAGSEU  
PB Denki Kagakkai Kagaku Sensa Kenkyukai  
DT Journal  
LA Japanese

L6 ANSWER 23 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1998:440235 CAPLUS  
DN 129:95916  
TI Resonance Raman scattering spectroscopic study model compounds for polyaniline  
AU Boyer, M. I.; Quillard, S.; Louarn, G.; Lefrant, S.; Rebourt, E.; Monkman, A.  
CS Laboratoire de Physique Cristalline, Institut des Materiaux, Universite de Nantes, Nantes, 44322, Fr.  
SO Journal de Chimie Physique et de Physico-Chimie Biologique (1998), 95(6), 1461-1464  
CODEN: JCPBAN; ISSN: 0021-7689  
PB EDP Sciences  
DT Journal  
LA French  
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 24 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1998:440199 CAPLUS  
DN 129:123034  
TI Local order in polyanilines

AU Folch, S.; Gruger, A.; Colomban, Ph.  
 CS CNRS, LASIR, Thiais, 94320, Fr.  
 SO Journal de Chimie Physique et de Physico-Chimie Biologique (1998), 95(6),  
 1299-1302  
 CODEN: JCPBAN; ISSN: 0021-7689  
 PB EDP Sciences  
 DT Journal  
 LA French

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 25 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 1998:106083 CAPLUS  
 DN 128:175633  
 TI Oligomeric anilines and soluble polypyrroles as sensors for volatile  
 organic compounds  
 IN MacDiarmid, Alan G.; Zhang, Wanjin; Feng, Jing  
 PA The Trustees of the University of Pennsylvania, USA; MacDiarmid, Alan G.;  
 Zhang, Wanjin; Feng, Jing  
 SO PCT Int. Appl., 99 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9804908	A1	19980205	WO 1997-US13148	19970725
	W: AU, CA, CN, JP, NZ, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
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PRAI	US 1996-22694P	P	19960726		
	WO 1997-US13148	W	19970725		

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 AN 1997:711423 CAPLUS  
 DN 128:23332  
 TI Possibility of polaronic structure in polyaniline lattice: a semiempirical  
 quantum chemical approach  
 AU Giri, D.; Kundu, K.; Majumdar, D.; Bhattacharyya, S. P.  
 CS Institute of Physics, Bhubaneswar, India  
 SO THEOCHEM (1997), 417(1-2), 175-185  
 CODEN: THEODJ; ISSN: 0166-1280  
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 LA English

L6 ANSWER 27 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 1997:540285 CAPLUS  
 DN 127:148792  
 TI Substituents Effect on the Electronic Properties of Aniline and  
 Oligoanilines  
 AU Vaschetto, Mariana E.; Retamal, Bernardo A.  
 CS Departamento de Quimica y Fisica Facultad de Ciencias Exactas  
 Fisicoquimicas y Naturales, Universidad Nacional de Rio Cuarto, Rio  
 Cuarto, 5800, Argent.  
 SO Journal of Physical Chemistry A (1997), 101(37), 6945-6950  
 CODEN: JPCAFH; ISSN: 1089-5639  
 PB American Chemical Society  
 DT Journal  
 LA English

L6 ANSWER 28 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 1997:314755 CAPLUS  
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TI Theoretical analysis of counterion influence over the physicochemical properties of aniline tetramers in several oxidation states  
 AU Vaschetto, M. E.; Retamal, B. A.; Contreras, M. L.; Zagal, J. H.  
 CS Facultad de Quimica y Biologia, Universidad de Santiago de Chile, Santiago, Chile  
 SO Structural Chemistry (1997), 8(2), 121-129  
 CODEN: STCHES; ISSN: 1040-0400  
 PB Plenum  
 DT Journal  
 LA English

L6 ANSWER 29 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 1997:224267 CAPLUS  
 DN 126:226105  
 TI Thin films of conjugated polymers: application in sensors for hydrocarbon vapors, microcontact-printed liquid crystal displays and light emitting devices  
 AU MacDiarmid, A. G.; Zhang, W. J.; Wang, Huang P.-C.; Huang, F.; Xie, S.  
 CS Dep. Chem., Univ. Pennsylvania, Philadelphia, PA, 19104, USA  
 SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1997), 38(1), 333-334  
 CODEN: ACPPAY; ISSN: 0032-3934  
 PB American Chemical Society, Division of Polymer Chemistry  
 DT Journal  
 LA English

L6 ANSWER 30 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 1997:217630 CAPLUS  
 DN 126:293703  
 TI Synthesis of oligomeric anilines  
 AU Zhang, W. J.; Feng, J.; MacDiarmid, A. G.; Epstein, A. J.  
 CS Department of Chemistry, University of Pennsylvania, Philadelphia, PA, 19104-6323, USA  
 SO Synthetic Metals (1997), 84(1-3), 119-120  
 CODEN: SYMEDZ; ISSN: 0379-6779  
 PB Elsevier  
 DT Journal  
 LA English

L6 ANSWER 31 OF 42 CAPLUS COPYRIGHT 2003 ACS  
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 DN 126:277970  
 TI Solution state doping studies of the polyemeraldine camphor sulfonic acid system  
 AU Monkman, A. P.; Rebourt, E.; Petr, A.  
 CS OEM Group, Department of Physics, University of Durham, Durham, UK  
 SO Synthetic Metals (1997), 84(1-3), 761-762  
 CODEN: SYMEDZ; ISSN: 0379-6779  
 PB Elsevier  
 DT Journal  
 LA English

L6 ANSWER 32 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 1997:217330 CAPLUS  
 DN 126:264425  
 TI Polyaniline oligomers; synthesis and characterization  
 AU Rebourt, E.; Joule, J. A.; Monkman, A. P.  
 CS Organic Electroactive Materials Research Group, Department of Physics, University of Durham, South Road, Durham, DH1 3LE, UK  
 SO Synthetic Metals (1997), 84(1-3), 65-66  
 CODEN: SYMEDZ; ISSN: 0379-6779  
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 DT Journal  
 LA English

L6 ANSWER 33 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1995:656169 CAPLUS  
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AU Pereira, E. C.; Longo, E.; Bulhoes, L. O. S.  
CS LIEC - Departamento de Quimica, Universidade Federal de Sao Carlos, Caixa  
Postal 676, Sao Carlos, SP, 13565-905, Brazil  
SO THEOCHEM (1995), 335, 141-7  
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DT Journal  
LA English

L6 ANSWER 34 OF 42 CAPLUS COPYRIGHT 2003 ACS  
AN 1995:611883 CAPLUS  
DN 123:199951  
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Analysis of counterion influence  
AU Vaschetto, M. E.; Retamal, B. A.; Contreras, M. L.; Zagal, J. H.; Bulhoes,  
L. O. S.  
CS Facultad de Ciencia, Universidad de Santiago de Chile, Santiago, Chile  
SO Structural Chemistry (1995), 6(2), 131-40  
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LA English

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AU Sales, Tasso R. M.; De Melo, Celso P.; Dos Santos, Maria Cristina  
CS Dep. Fis., Univ. Fed. Pernambuco, Recife, 50739, Brazil  
SO Synthetic Metals (1991), 43(3), 3751-4  
CODEN: SYMEDZ; ISSN: 0379-6779  
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AU Nalwa, Hari Singh  
CS Mater. Syst. Eng., Tokyo Univ. Agric. Technol., Koganei, 184, Japan  
SO Journal of Materials Science (1991), 26(6), 1683-90  
CODEN: JMETSAS; ISSN: 0022-2461  
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AU Javadi, H. H. S.; Treat, S. P.; Ginder, J. M.; Wolf, J. F.; Epstein, A. J.  
CS Dep. Phys., Ohio State Univ., Columbus, OH, 43210-1106, USA  
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 AU Watanabe, Akira; Mori, Kunio; Iwasaki, Yasunori; Murakami, Shuuji;  
 Nakamura, Yoshiro  
 CS Fac. Eng., Iwate Univ., Morioka, 020, Japan  
 SO Journal of Polymer Science, Part A: Polymer Chemistry (1989), 27(13),  
 4431-7  
 CODEN: JPACEC; ISSN: 0887-624X  
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L6 ANSWER 39 OF 42 CAPLUS COPYRIGHT 2003 ACS  
 AN 1989:515810 CAPLUS  
 DN 111:115810  
 TI A study of the mechanism of aniline polymerization  
 AU Wei, Yen; Tang, Xun; Sun, Yan; Focke, Walter W.  
 CS Dep. Chem., Drexel Univ., Philadelphia, PA, 19104, USA  
 SO Journal of Polymer Science, Part A: Polymer Chemistry (1989), 27(7),  
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 AN 1989:408125 CAPLUS  
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 TI Molecular weights of polyaniline and its derivatives  
 AU Wei, Yen; Hsueh, Kesyin; Tang, Xun; Sun, Yan  
 CS Dep. Chem., Drexel Univ., Philadelphia, PA, 19104, USA  
 SO Polymer Preprints (American Chemical Society, Division of Polymer  
 Chemistry) (1989), 30(1), 226-7  
 CODEN: ACPPAY; ISSN: 0032-3934  
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 DN 110:8930  
 TI Molecular weight of chemically polymerized polyaniline  
 AU Tang, Xun; Sun, Yan; Wei, Yen  
 CS Dep. Chem., Drexel Univ., Philadelphia, PA, 19104, USA  
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 AN 1988:205372 CAPLUS  
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 TI Electronic excitations in polyaniline: an (INDO/S)-CI study  
 AU Sjoegren, B.; Stafstroem, S.  
 CS Dep. Phys. Measur. Technol., Linkoping Univ., Linkoping, S-581 83, Swed.  
 SO Journal of Chemical Physics (1988), 88(6), 3840-7  
 CODEN: JCPSA6; ISSN: 0021-9606  
 DT Journal  
 LA English